

**No. 2013-1596
(Reexamination No. 95/001,070)**

**IN THE
United States Court of Appeals
FOR THE FEDERAL CIRCUIT**

CROSS ATLANTIC CAPITAL PARTNERS, INC.,

Appellant,

v.

FACEBOOK, INC.,

Appellee.

Appeal from the United States Patent and Trademark Office,
Patent Trial and Appeal Board in Reexamination No. 95/001,070.

**BRIEF FOR APPELLANT
CROSS ATLANTIC CAPITAL PARTNERS, INC.**

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STATEMENT OF RELATED CASES

Appellant Cross Atlantic Capital Partners, Inc. is unaware of any other appeals or petitions taken in this reexamination proceeding. There are, however, other matters pending that involve U.S. Patent No. 6,519,629 at issue in this appeal:

- *Cross Atlantic Capital Partners, Inc. v. Facebook, Inc. and TheFacebook, LLC.*, No. 2:07-cv-02768-JP (E.D. Pa.)

JURISDICTIONAL STATEMENT

This appeal arises from an *inter partes* reexamination proceeding before the U.S. Patent and Trademark Office (“PTO”). *See* 35 U.S.C. §§ 311-314. Cross Atlantic Capital Partners, Inc. (“XACP”) (the patent owner) appealed the Examiner’s final rejections of the claims to the Patent Trial and Appeal Board (the “Board”), which had jurisdiction under 35 U.S.C. §§ 134 and 306. On February 5, 2013, the Board issued a final decision affirming the rejections. On June 13, 2013, the Board denied XACP’s rehearing request. On July 18, 2013, XACP timely filed a notice of appeal. This Court has jurisdiction under 35 U.S.C. § 141.

ISSUES PRESENTED

1. Whether the Board’s obviousness determinations are legally erroneous, where those determinations are based on: (a) a failure to consider the earlier priority of U.S. Patent Number 6,519,629 B2 (the “’629 patent”); (b) combinations of references without any rational basis to justify the combinations; (c) an unreasonably broad claim construction; and (d) a misunderstanding of the teachings of the relied-upon references.

2. Whether the Board’s anticipation findings as to claims 1-32 are supported by substantial evidence, where those findings are based on an unreasonably broad claim construction and none of the purportedly invalidating references teach every claimed limitation.

STATEMENT OF THE CASE

On July 3, 2007, XACP sued Facebook, Inc. and The Facebook, LLC (“Facebook”) in the Eastern District of Pennsylvania for infringement of U.S. Patent Number 6,519,629 B2, titled “System For Creating a Community for Users With Common Interests to Interact In,” and issued to James Harvey, Andrew Fegly, Matt Hulan, and Robert Dekelbaum on February 11, 2003 (the “’629 patent”). On July 21, 2008, following eight months of fact and expert discovery, and after the district court had construed the claims and the parties had fully briefed dispositive motions, Facebook filed a Request for *Inter Partes* Reexamination of Claims 1-32 of the ’629 patent. (*see, e.g.*, JA61-62).

On March 12, 2010, the Examiner upheld the patentability of pending claims 1-32 over all rejections proposed by Facebook. Facebook appealed the Examiner’s decision, and XACP cross-appealed. On June 28, 2011, the Board reversed the Examiner’s finding of patentability and entered six new grounds of rejection (JA2644) (“Decision I”).

As a result, pursuant to 37 C.F.R. § 41.77(b)(1), XACP requested to reopen prosecution and submitted an amendment of claims 1-32 and new claims 76-146 (JA2774-2798) (“Amendment”). On August 29, 2011, Facebook filed comments proposing obviousness rejections of all claims over new combinations of references: (a) U.S. Patent Application Publication Number 2005/0055306 A1 to Miller et al. (“Miller”) and U.S. Patent Number 6,058,482 to Liu (“Liu”); and (b) U.S. Patent Number 6,223,177 to Tatham et al. (“Tatham”), Liu and either one of “Yahoo! For Dummies” by Brad Hill (“Yahoo”) or U.S. Patent Number 6,029,195 to Herz (“Herz”). (JA 2985) (“Facebook Comments”). On November 15, 2011, the Examiner rejected all pending claims, stating “[a]ll of third party requester’s (‘3PR’) proposed rejections as set forth in the Comments on the Patent Owner’s (‘PO’) Amendments (filed Oct. 29, 2011) are adopted and incorporated here by reference.” (JA3095) (“Determination”). No other analysis or review of the amended and new claims or prior art was provided by the Examiner. On February 5, 2013, the Board affirmed the Examiner’s decision—rejecting claims 1-32 and 76-146 as obvious over Miller and Liu and over Tatham, Liu, and either one of Yahoo or Herz; rejecting claims 1-32 under 35 U.S.C. § 102(e) as anticipated by U.S. Patent Number 6,608,636 B1 to Roseman (“Roseman”); rejecting claims 1, 2, 4-7, 9, 10, 12-15, 17, 18,

20-23, 25, 26, and 28-31 as anticipated by “Software for Interactive On-Line Conferences” by Sarin, et al. (“Sarin”); and rejecting claims 3, 11, 19, and 27 as obvious over Sarin and Yahoo.¹ (JA21) (“Decision II”) The Board also reversed the Examiner’s rejection of: claims 17-32 as anticipated by Tatham and obvious over Tatham and Yahoo; and claims 24 and 32 as obvious over Tatham and Herz. (JA21). The Board did not reach the propriety of the Examiner’s rejection of (1) claims 91-100, 122-131, 140, 141, 145 and 146 under 35 U.S.C. § 112, first paragraph; and (2) claims 76-90, 101-112, 114-121, 132-139 and 142-144 under 35 U.S.C. § 305.² (JA21) XACP requested rehearing, but the Board subsequently denied that request.

¹ In Decision II, the Board also stated that “[s]ince Patent Owner may not ‘reopen the prosecution’ except as to subject matter which new grounds of rejection was applied and the now argued claim features recited in proposed new claims 76-81 and 107-112, at least, do not constitute subject matter which the new grounds of rejection were applied, such new claims are not properly presented for consideration.” (JA17). However, “[i]n view of the Examiner’s entry of new claims 76-146, [the Board considered the] new claims in view of the proposed rejections” (JA17). XACP argued that each of amended claims 1-32 and new claims 76-146 were properly presented. (JA3302-08). The Board stated that the foregoing arguments are moot because Decision II did not disturb the Examiner’s entry of the Amendment. (JA3357-58).

² Because those rejections did not form any part of the Board’s Decision II (JA20-21), XACP does not raise those rejections in the issues presented. However, XACP demonstrated the error in the Examiner’s rejections under both 35 U.S.C. § 112, first paragraph (JA3193-95) and 35 U.S.C. § 305 (JA3195-96).

STATEMENT OF FACTS

In the late 1990's, iKimbo, Inc. ("iKimbo") was formed to develop and commercialize the novel and ground-breaking technology conceived in large part by James Harvey ("Harvey"). (JA1528). iKimbo initiated a project named Envelopment in or about October 1997 that was intended to "envelop the entire Internet in a social network using, among other things, e-mail." (JA3098). Prior to May 22, 1998, Harvey and his co-inventor Matt Hulan had conceived of the inventions that are now embodied in claims 1-4, 9-12, 17-20, 25-28, 76, 78-80, 82, 83, 89, 92, 94, 96, 97, 99, 101, 103-105, 107, 109-111, 113, 114, 116, 118, 120, 122, 123, 125, 127, 128, 130 and 132-136 (the "Earlier Claims"). (JA3099-3104). The inventors of the Earlier Claims were diligent from at least May 22, 1998 to at least September 15, 1998 in their efforts to reduce the Earlier Claims to practice. (JA3104-3107). This technology includes, *inter alia*, systems and methods for creating an on-line community for users with common interests. (JA1528).

The inventors of the '629 patent recognized certain shortcomings with the Internet and sought to improve upon the available methods for users with common interests to interact. Harvey recognized that such users often had a

difficult time locating each other, requiring many steps and a significant amount of time before any actual interaction. (JA44 2:21-24). For example, the user had to establish an Internet connection and locate suitable users with whom to interact. (*Id.* 2:7-9). Harvey also recognized that the available methods of interaction prior to the invention of the '629 patent were cumbersome and beyond the technical capacity of many users:

For example, prior to establishing a service, a user must locate the desired application on line or, alternatively, purchase it in the store. Once the application has been downloaded or purchased, the user must manually complete the often detailed, frustrating and time consuming process of installing the application on the user's local computer.

(*Id.*, 2:1-7).

These issues made it difficult to create on-line communities for users with similar interests. (*Id.*, 2:25-42). Harvey sought to simplify processes for interaction among individuals and/or entities which occur through a communications network. (JA45, 3:11-14). To do so, he developed a system that enabled creation and distribution of application objects, which direct users to specific information. (*Id.*, 3:20-23). For example, Harvey created a methodology for invoking an invitation application to simplify the creation of an electronic connection among a plurality of users through an on-line community associated with a user interest, and to allow its widespread and rapid distribution. (*Id.*, 3:25-29).

The '629 patent teaches a novel method for creating and transmitting a community to permit users with common interests to interact. Claim 1 recites:

A method for creating a community for users with common interests to interact in, the method comprising the steps of:

receiving a creation transmission from a registered user, the creation transmission indicating that the registered user desires to create a community;

receiving community identification information from the registered user;

receiving a selection of at least one application object from the registered user, said at least one application object including an executable component;

creating a community based on the community identification information and the at least one application object;

receiving at least one communications address designated by the registered user, the at least one communications address corresponding to a user to receive a created community; and

transmitting the created community, including the at least one application object, based in part on the at least one communications address.

(JA2775) (emphasis omitted).

The '629 patent teaches an Information and Application Distribution System ("IADS"), which operates to distribute, initiate and allow interaction and communication with communities of individuals with common interests.

(JA45 3:35-39). "Application distribution occurs through the transmission

and receipt of an ‘invitation application’ which contains both a message component and an executable component to enable multiple users to connect within a specific community.” (JA28).

The creator of the community can select the names and e-mail addresses of the individuals to be invited to access the community. The invited users can be sent a transmission, such as an e-mail message, based on the information provided by the creator. The transmission includes a message component and an executable component. (JA45 4:47-64). Upon receipt of the transmission, a user executes the executable component according to the instructions. At this point, the program may download additional content objects, application objects, or client software components to allow the user to interact with the community from outside the browser environment. (JA45-46 4:65-5:11).

An invited user *receives* the invitation application and launches it at step 262. The *executable component* prompts an invited user to provide acceptance information at step 264. . . . Central controller module 115 approves the acceptance and *transmits a community client application* at step 268, and *launches the community client application* at step 270.

(JA50, 13:22-29) (emphasis added).

The IADS of the ’629 patent can permit access to one or more customized communities and allow users to interact with community applications. (JA45 3:42-45). As explained in the specification:

Upon entering a community, a user may access content objects, such as subscription objects, *application objects*, or other content, which form the community. A user automatically *receives content objects* that are updated. Interaction includes using the various *application objects downloaded to the user*, such as interacting with another user in the chat area.

(JA46 5:14-20) (emphasis added). A “community” is thus described as being created based on information and at least one application object, which enables interaction among users through a downloaded executable component. (JA46).

STANDARD OF REVIEW

This Court reviews the Board’s claim construction *de novo*. *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1456 (Fed. Cir. 1998) (*en banc*); *In re Baker Hughes*, 215 F.3d 1297, 1301 (Fed. Cir. 2000) (“Although the PTO gives claims the broadest reasonable interpretation consistent with the written description, claim construction by the PTO is a question of law that we review *de novo*, just as we review claim construction by a district court.”) (internal citations omitted). The Board’s ultimate obviousness decision is subject to *de novo* review, but the Board's underlying factual findings are reviewed for substantial evidence. *In re Klein*, 647 F.3d 1343, 1347 (Fed. Cir. 2011). Anticipation is a question of fact reviewed for substantial evidence. *In re Hyatt*, 211 F.3d 1367, 1371-72 (Fed. Cir. 2000).

SUMMARY OF ARGUMENT

This case arises from the Board's rulings that: (a) claims 1-32 and 76-146 of the '629 patent are obvious over Miller and Liu and over Tatham, Liu, and either one of Yahoo or Herz; (b) claims 1-32 are anticipated by Roseman; (c) claims 1, 2, 4-7, 9, 10, 12-15, 17, 18, 20-23, 25, 26, and 28-31 are anticipated by Sarin; and (d) claims 3, 11, 19, and 27 are obvious over Sarin and Yahoo. In reaching these erroneous conclusions, the Board adopted wholesale Facebook's flawed arguments without additional supporting analysis, committed legal error, and failed to provide substantial evidence to support its factual findings as detailed below.

First, the Board erred in finding that Yahoo, Miller and Liu qualify as prior art. The Board erroneously found that XACP's arguments for an earlier priority date for the '629 patent were untimely, and even if considered, they did not support an earlier priority date. However, the obviousness rejections in light of Miller and Liu and in light of Tatham, Liu, and either one of Yahoo or Herz were first proposed by Facebook after XACP's request to reopen prosecution. Each of those rejections included at least one new reference—Liu was entirely new, Yahoo included material which had not been previously submitted or relied upon and Miller had

never been entered by the Examiner in a prior art rejection.³ The PTO rules did not permit XACP an opportunity to raise its priority challenges before it did, and the Board erred in rejecting them as untimely.

Moreover, contrary to the Board's findings, none of Yahoo, Miller or Liu qualify as prior art at least as to the Earlier Claims. The decisive declaration submitted by inventor James Harvey during reexamination (the "Harvey Declaration") and its supporting exhibits demonstrate that the '629 patent is entitled to the earlier filing date of the U.S. Patent Application Number 09/264,988 ("988 Application") (*i.e.*, September 15, 1998), at least as to the Earlier Claims. Both Yahoo and Miller have later effective dates, and therefore do not qualify as prior art as to those claims. With respect to Liu, the Harvey Declaration includes the express sworn statements of each of the inventors of the Earlier Claims and supporting evidence demonstrating: (1) the invention was conceived prior to the May 22, 1998 effective date of Liu; and (2) ample diligence from the effective date of Liu until the constructive reduction to practice with the filing of the '988 Application. Liu therefore also does not qualify as prior art as to the Earlier

³ Although Miller was previously cited by Facebook in a proposed anticipation rejection of claims 33-75 (*see* JA1448), which claims XACP added during the reexamination and later canceled, the Examiner never entered that rejection and instead rejected claims 33-75 for broadening. (JA1488; JA1620).

Claims. Because at least one of the references relied upon in each of the above three obviousness rejections does not qualify as prior art, this Court need look no further than the above errors to reverse all three obviousness rejections as to the Earlier Claims.

In addition, there are multiple deficiencies in the Board's obviousness rejections that independently justify reversal as to all of claims 1-32 and 76-146. First, the Board failed to provide sufficient rational underpinning for any of the three combinations relied upon for the obviousness rejections. Second, the Board erroneously found that each of the asserted combinations teaches or suggests "transmitting" or "receiving a transmission of" "the created community, including the at least one application object, based in part on the at least one communications address" ("the Transmitting/Transmission limitations").

The Board erroneously rejected XACP's arguments that the combination of Yahoo, Tatham and Liu lacked rational underpinning as untimely on the basis that XACP had not previously argued the combinability of Yahoo and Tatham alone. That combination, however, is not the basis of the Board's rejection. And indeed, XACP timely argued that there was no basis to combine *all three references* in its first permitted

response following Facebook's proposed rejection, after XACP reopened prosecution and filed the Amendment.

Moreover, the Board failed to provide any rationale for the combinations of Yahoo, Tatham and Liu, and Tatham, Herz and Liu. As this Court recently stated: "[w]here, as here, the necessary reasoning is absent, [the Court] cannot simply assume that 'an ordinary artisan would be awakened to modify prior art in such a way as to lead to an obviousness rejection.' It is in such circumstances, moreover, that it is especially important to guard against the dangers of hindsight bias." *Plantronics, Inc. v. Aliph, Inc.*, 724 F.3d 1343, 1354 (Fed. Cir. 2013). In addition, the Board's rationale for combining Miller and Liu was conclusory, and neglected that Miller actually teaches away from Liu. Liu is directed to providing network security for executable code in computer and communications networks, while Miller seeks to minimize programming and facilities communication over the Internet. Indeed, the Board concedes, as it must, that Miller does not expressly disclose transmitting an executable component. All three of the obviousness rejections should therefore be reversed.

The Board's three obviousness rejections should also be reversed because none of the asserted combinations teaches or suggests the

Transmitting/Transmission limitations present in all the pending claims. In reaching its erroneous conclusion, the Board failed to adopt the broadest reasonable construction for “community” and “transmitting the created community” that was consistent with the ’629 patent specification. The Board then relied on its impermissibly overbroad interpretation of these terms to reject all pending claims. The Board incorrectly found “that a ‘community’ includes any group of persons or entities in common.” Such a construction, however, is inconsistent with, and not supported by, the intrinsic record, which confirms that “community” is comprised of information and application objects. Therefore, this Court should construe community to mean “information and the at least one application object that was selected by the user relating to a specific transaction, interaction, and/or an expression of interest that may be accessed and/or interacted with by a plurality of users with common interests through a private or public communications network, such as web pages or an Internet site,” as did the district court in the parallel litigation. Under such a proper construction, none of the asserted combinations teaches or suggests the Transmitting/Transmission limitations—providing another independent basis to reverse all three of the obviousness rejections.

Likewise, the Board's anticipation rejections of claims 1-32 over Roseman and claims 1, 2, 4-7, 9, 10, 12-15, 17, 18, 20-23, 25, 26, and 28-31 over Sarin are not supported by substantial evidence. Neither Roseman nor Sarin teach at least: (1) "said at least one application object including an executable component;" and (2) the Transmitting/Transmission limitations as required by claims 1-32. The combination of Yahoo with Sarin does nothing to overcome the deficiencies of Sarin alone, and therefore the rejection of claims 3, 11, 19, and 27 as obvious over the combination of Sarin and Yahoo also should be reversed.

In sum, because the Board's obviousness rejections are erroneous, and because neither the factual findings underlying the obviousness rejections nor the anticipation rejections are supported by substantial evidence, all of the Board's rejections should be reversed.

ARGUMENT

I. The Board Erred In Finding That Yahoo, Miller, And Liu Constitute Prior Art.

The Board Committed a series of errors in finding that Yahoo, Miller and Liu constitute prior art as to the Earlier Claims, which require reversal of all three obviousness rejections relying on one or more of those references. First, the Board erroneously refused to consider XACP's timely arguments for an earlier priority date and found that even if considered,

those arguments failed to demonstrate support for an earlier priority date. (JA17-18). Second, the Board erroneously found that Yahoo and Miller qualified as prior art, relying on Facebook’s argument that the Harvey Declaration fails to establish entitlement to the ’988 application’s filing date. (*Id.*) Third, the Board erred in finding that Liu is prior art, relying on Facebook’s unsupported arguments that: (1) XACP has failed to show prior conception; and (2) XACP has failed to show diligence in reduction to practice. (*Id.*)

A. The Board Committed Legal Error By Refusing To Consider XACP’s Timely Arguments For An Earlier Priority Date.

The Board erroneously refused to consider XACP’s timely arguments and evidence to support the earlier priority date of the ’629 patent. (JA17-18). Specifically, the Board asserted that XACP “could have but chose not to make arguments pertaining to priority,” and therefore, such “arguments are deemed to have been waived and will not be considered.” (JA18). Contrary to the Board’s ruling (JA18), it was never determined during the reexamination that the ’629 patent was not entitled to an earlier priority date or an earlier conception date.

Moreover, the combinations of references relied upon by the Board were proposed for the first time in the Facebook Comments after XACP

submitted the Amendment reopening prosecution. (*See* JA2985). XACP, therefore, plainly could not have previously raised the priority issue with respect to any of these three new combinations—(1) Yahoo, Tatham and Liu; (2) Tatham, Herz and Liu; and (3) Miller and Liu. PTO rules afforded XACP no opportunity for XACP to respond before the Examiner simply adopted Facebook's proposed rejections wholesale and without comment. (*See* JA3095). Indeed, each of the three newly proposed combinations relied on at least one new reference that was not included in the Board's six new grounds of rejection in Decision I, and therefore, provided an entirely new purported basis for rejection.

The Board ignores that XACP could not previously have argued for an earlier priority date with respect to Liu, Yahoo or Miller. Liu was raised for the first time by Facebook after Board Decision I and XACP's request to reopen prosecution. Additionally, with respect to the Yahoo reference, Facebook concedes that it submitted entirely new portions of Yahoo with the Facebook Comments, making arguments based upon prior art never previously presented in the reexamination. (JA3262). Page 267 of Yahoo, cited by the Board (JA19), was first presented by Facebook after XACP's Amendment reopening prosecution was submitted. (*See* JA3004, JA3011). The Yahoo reference relied on by the Board in Decision II was thus

essentially a new reference against which XACP could not have asserted its priority date before it did so, *i.e.* in response to the Facebook Comments. No prior art rejection had previously been entered including Miller, so XACP never had the opportunity to argue for an earlier priority date with respect to Miller. Therefore, any finding of waiver by the Board concerning XACP's priority challenges as to Liu, Yahoo and Miller is contrary to the record and constitutes legal error.

The Board's error is highlighted by its failure to follow its own binding precedent, *Ex parte Frye*, 94 U.S.P.Q.2d 1072, 1075 (BPAI 2010). Although the Board relied on Facebook's Reply (JA3251) quoting *Ex parte Frye* for the premise that the Board "may treat arguments appellant failed to make *for a given ground of rejection* as waived," it ignored what *Ex parte Frye* requires. (JA17). Because each of Facebook's purported grounds of rejection was new, including new art and a *new* combination of references, XACP could not have challenged those grounds of rejection prior to those being raised by Facebook after XACP's Amendment.

B. The Board Erred In Finding That Yahoo and Miller Qualify as Prior Art Because XACP Showed Entitlement To The Filing Date Of The '988 Application For The Earlier Claims.

The '629 patent is a division of Application Number 09/513,844, filed on February 25, 2000, which is a continuation-in-part of the '988 Application, filed on September 15, 1998. The '629 patent thus can claim an effective date of September 15, 1998 for any claims fully supported under 35 U.S.C. § 112 in the '988 Application. *See* MPEP 706.02 V(B).

The Board erroneously relied on Facebook's arguments that the Harvey Declaration fails to establish entitlement to the filing date of the '988 Application as to claims 1-4, 9-12, 17-20, 25-28, 76, 78-80, 82, 83, 89, 92, 94, 96, 97, 99, 101, 103-105, 107, 109-111, 113, 114, 116, 118, 120, 122, 123, 125, 127, 128, 130 and 132-136 (the "Earlier Claims"). (JA17 (citing JA3257-59)). In fact, Exhibit M of the Harvey Declaration outlines in detail where each of the limitations of the Earlier Claims is supported in the '988 Application. (JA3155-57). Specifically, the '988 Application discloses a registration process for a user in which sufficient information is provided by the user as required to enable game play (*See* JA 3155 (citing JA3599 ll. 12-21)) after which the registered user enters a lobby chat room and selects other chat rooms and/or the application/game in which the user wishes to participate with others (*See* JA 3155 (citing JA3600 ll. 3-5)). The selection

of the above items satisfies the limitations directed to: (1) receiving a creation transmission; (2) receiving community identification information; and (3) receiving a selection of at least one application object under the above claim construction. (*See* JA3155 (citing JA3602 ll. 1-3 and 8-9)). The selected chat rooms and designated applications create a community such that it may be accessed and/or interacted with by a plurality of users with common interests, and therefore satisfy the limitation directed to creating a community based on the community identification information and the at least one application object. (JA 3155 (citing JA3600 ll. 3-5, JA3602 ll. 1-6 and 8-13)). The user “can designate email addresses (as well as possibly some additional data) for potential new users at step 5185,” (*See* JA 3155 (citing JA3602 ll. 6-8)), satisfying the limitation directed to receiving at least one communication address. The application object with the designated games (and/or other applications) is emailed to designated potential users, (*See* JA 3155 (citing JA3590 ll. 9-11; JA3600 ll. 7-8; JA3602 ll. 11-12)), which supports the limitation directed to transmitting the created community, including the at least one application object.⁴ The ’988

⁴ Facebook further argued that XACP conceded that the transmitting limitation is not supported by the ’988 Application, because XACP cited only material in the later ’844 Application that did not appear in the ’988 Application to support that limitation in an earlier filing in the reexamination. (JA3259 (citing JA3052-53)). However, the Petition was

Application thus supports each of the limitations contested by Facebook, and each of the Earlier Claims is therefore entitled to the filing date of that application.

Accordingly, neither Yahoo nor Miller qualifies as prior art for the Earlier Claims, as both have publication dates after the '988 Application. Yahoo was published in 1999. Miller, filed on October 20, 2004, was a divisional of an application filed on September 21, 1999 and claims priority to a provisional application filed on September 22, 1998. The earliest possible priority date for Miller is thus September 22, 1998.⁵ Accordingly, the obviousness rejections over Yahoo, Tatham and Liu and over Miller and Liu should be reversed as to the Earlier Claims.

C. The Board Erred In Finding That Liu Qualifies as Prior Art Because XACP Demonstrated Earlier Conception and Diligence To Reduction To Practice.

Liu, which issued on May 2, 2000, also does not qualify as prior art at least as to the Earlier Claims and provides a second independent basis to

filed in response to the Examiner's initial refusal to enter the Amendment and had nothing to do with supporting an earlier priority date. The selection of exemplary support for the claim limitations presented in the Petition is immaterial, particularly where, as here, Exhibit M of the Harvey Declaration provides ample support for the transmitting limitation, as discussed above.

⁵ Notably, Facebook did not argue that Miller is entitled to an earlier effective date, and in fact admitted that Miller is "entitled to a § 102(e) priority date of September 21, 1999." (JA2986).

reverse the Board's three obviousness rejections. Liu was filed on May 22, 1998, and does not claim priority to any earlier applications. Contrary to the Board's decision, the factual proof in the Harvey Declaration includes the express sworn statements of each of the inventors of the Earlier Claims showing: (1) the invention was conceived prior to the filing date of Liu (JA3099-3104); and (2) reasonable diligence from the filing date of Liu until the constructive reduction to practice with the filing of the '988 Application (JA3104-07), as required by MPEP § 715.07 and 37 C.F.R. § 1.131(b). Indeed, because the '988 Application fully supports each of the Earlier Claims, it constitutes constructive reduction to practice of the Earlier Claims. Liu therefore does not qualify as prior art for the Earlier Claims.

1. The Board Erred In Finding That XACP Did Not Demonstrate Conception Prior To Liu's Filing Date.

First, none of Facebook's arguments relied upon by the Board (JA18) provides substantial evidence to refute XACP's evidence of earlier conception. As to the evidence of conception prior to May 22, 1998, Facebook alleged that the Harvey Declaration should be discredited as purportedly unreliable. (JA3252). Its arguments, however, were based on incomplete and misleading citations to the Deposition of James Harvey. Although Facebook asserted that "Mr. Harvey identified 'September 1998,'

when the '988 Application was filed, and did not identify any earlier date,” (JA3252-53 (citing JA3216:14 – JA3218:41)), he actually testified that conception occurred before the filing date of the '988 Application (JA3217:19 – JA3218:21) (testifying that conception occurred “before [September 1998], because it took a while to then do it” and “no later than September 1998”). There is nothing in the Harvey deposition that contradicts his declaration.

Facebook also argued that the failure of the Harvey Declaration to acknowledge the contribution of his co-inventor, Andrew Fegly, who did not join the Rule 131 Declaration, is somehow problematic. (JA3253). Facebook acknowledges, however, that Mr. Fegly did not join the company until mid-October 1999. (*Id.*). Therefore, he could not have been an inventor of the claims covered by the '988 Application, which was filed before his arrival.⁶ Accordingly, Mr. Fegly, who played no part in the inventive activities leading up to the filing of the '988 Application, cannot contradict the evidence in the Harvey Declaration and accompanying exhibits supporting an earlier conception date.

⁶ Facebook’s reliance on Mr. Fegly’s deposition testimony to argue that actual conception did not occur until after Mr. Fegly arrived in October 1999 (JA3253) is equally misplaced. Because Mr. Fegly was not present for the conception and diligence documented in the Harvey Declaration, he does not have actual knowledge of these events and therefore, is not qualified to testify as to those issues.

The Board also relied upon Facebook's erroneous arguments that Exhibit C to the Harvey Declaration "teaches away from the claimed invention of user-created communities because it describes a pre-built 'lobby' executable file that is 'distributed via mass e-mailings to highly targeted groups of customers,' which those customers can forward to other users." (JA18 citing JA3254). Contrary to Facebook's arguments, which are limited to "the steps of community creation," the Harvey Declaration explains the earlier conception of the purportedly missing steps (JA3102-03).

Facebook's arguments that Harvey Exhibits C, D, E and G are undated and there is no corroborating evidence as to when they were actually prepared (*see* JA3254) are equally incorrect. For example, the Harvey Declaration explicitly states that: (1) Exhibit C was presented at a meeting between Mr. Harvey and patent attorney Mr. Lobenz within a day or two of a visit by Mr. Lobenz on or about January 21, 1998; (2) Exhibit D was prepared prior to May 22, 1998; (3) the charts and graphs depicted in Exhibit E, included charts and graphs which existed in basically the same form as early as February 1998; and (4) Exhibit G was prepared by July 1998. (*See* JA3100-3101, JA3106).

2. The Board Erred In Finding That XACP Did Not Demonstrate Diligence From Conception To Constructive Reduction To Practice.

Second, the Board committed legal error by relying on Facebook’s arguments concerning a purported failure by XACP to show diligence from conception to reduction to practice. Facebook argued that the claimed community creation techniques were not disclosed in the ’988 Application, and therefore that application does not constitute constructive reduction to practice as to those limitations. (JA3256). However, as described in Section I.B above, the ’988 Application amply supports each of the Earlier Claims, and XACP need only show diligence until constructive reduction to practice on September 15, 1998 with the filing of that application. *Monsanto Co. v. Mycogen Plant Science, Inc.*, 261 F.3d 1356, 1578 (Fed. Cir. 2001) (“The time period for which diligence must be shown by the party first to conceive is ‘from a date just prior to the other party’s conception to . . . [the date of] reduction to practice [by the party first to conceive].’”).

The Board also erroneously relied on Facebook’s arguments that the Harvey Declaration affirmatively negates any claim of diligence by allegedly acknowledging that the inventors voluntarily delayed development of the claimed invention in favor of another product. (JA3256). Although the Harvey Declaration acknowledges parallel efforts, diligence does not

require the exclusive focus of the inventors. *Mycogen Plant Science, Inc. v. Monsanto Co.*, 252 F.3d 1306, 1316 (Fed. Cir. 2001), *vacated and remanded for further consideration in light of Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722 (2002), 535 U.S. 1109 (2002) (“Proof of reasonable diligence, however, does not require a party to work constantly on the invention or to drop all other work.”). Therefore, the *Scharmann* case cited by Facebook and relied upon by the Board (JA 3256) is inapposite. *See Scharmann v. Kassel*, 179 F.2d 991, 997 (C.C.P.A. 1950) (“A party first to conceive who voluntarily lays aside his inventive concept cannot defeat another party who enters the field and reduces the same invention to practice while the one first to conceive was engrossed in the pursuit of other projects.”). In this case, there is absolutely no evidence that the inventors set aside their inventive concept, or did anything but work diligently to reduce that concept to practice in parallel with other projects.

In addition to the activity acknowledged by Facebook (JA3257), the Harvey Declaration also discloses that a consultant was engaged to assist in reducing the claimed invention to practice. (JA3101). Working with the inventors, that consultant helped to create numerous charts and graphs describing the features and operation of the invention that the inventors described to him. (JA3101) “Work on the graphs and charts was performed

by [the consultant] on a weekly or a bi-weekly basis from approximately February 1998 through September 3, 1998, when the document was turned over to the [patent] lawyers [] to prepare a patent application.” (JA3101). Indeed, the Harvey Declaration notes that despite the lack of funds, the inventors and the consultant continued to work on the development of the claimed invention. (JA3105). A new employee joined the project in July 1998 and assisted in the reduction to practice of the inventions in the Earlier Claims. (JA3099, JA3105).

The Harvey Declaration thus supports a process of weekly or biweekly revisions of the inventive concept from February to September 3, 1998 by a consultant hired expressly for that purpose in coordination with the inventors. The refined concept was turned over to the patent lawyers for completion of a patent application, which was filed on September 15, 1998, completing the reduction to practice. XACP thus showed reasonable diligence from prior to the filing of the Liu application to constructive reduction to practice of the Earlier Claims by filing the '988 Application.

Liu therefore does not qualify as prior art with respect to the Earlier Claims and the obviousness rejections over Miller and Liu and over Tatham, Liu, and either one of Yahoo or Herz should be reversed as to the Earlier Claims.

* * *

Accordingly, multiple independent bases reveal that the Board's obviousness rejections as to the Earlier Claims are legally erroneous and should be reversed.

II. The Board's Obviousness Determinations Are Also Legally Erroneous Because There Is No Rational Underpinning To Combine The Asserted References.

Obviousness is a question of law, based on four factual inquiries: the scope and content of the prior art, the differences between the prior art and the claimed invention, the level of ordinary skill in the field of the invention, and any relevant objective considerations. *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398, 406, 427 (2007) (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966)). "The gravamen of the parties' dispute here involved whether a skilled artisan would have been motivated to combine certain prior art references, an issue that focuses heavily on the first and third *Graham* factors." *Plantronics*, 724 F.3d at 1353 (citing *Alza Corp. v. Mylan Labs., Inc.*, 464 F.3d 1286, 1290 (Fed. Cir. 2006) ("[T]he motivation to combine requirement entails consideration of both the scope and content of the prior art and level of ordinary skill in the pertinent art aspects of the *Graham* test.")).

In overturning the obviousness rejection in *Plantronics*, this Court held that “[w]here, as here, the necessary reasoning is absent, [the Court] cannot simply assume that ‘an ordinary artisan would be awakened to modify prior art in such a way as to lead to an obviousness rejection.’ It is in such circumstances, moreover, that it is especially important to guard against the dangers of hindsight bias.” *Id.* at 1354 (internal citations omitted). The Board’s reasoning is equally flawed here, failing to provide any support in the record to suggest the required analysis.

This Court has consistently rejected such an approach, including very recently:

[B]etween this [prior art] disclosure and the claimed invention lies a logical chasm—a chasm not bridged by the prior art, common sense, or [] statements that the claimed invention was obvious. Even under our “expansive and flexible” obviousness analysis (*see KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 415 (2007)), we must guard against “hindsight bias” and “ex post reasoning” (*id.* at 421). Doing so here compels us to reject [the obviousness] argument.

St. Jude Med., Inc. v. Access Closure, Inc., No. 2012-1452, 2013 U.S. App. LEXIS 18834, at *25-26 (Fed. Cir. Sept. 11, 2013). The Board’s reasoning in this case suffers similar defects and should similarly be reversed.

“While a prior art reference may support any finding apparent to a person of ordinary skill in the art, prior art references that address different problems may not, depending on the art and circumstances, support an

inference that the skilled artisan would consult both of them simultaneously.” *Broadcom Corp. v. Emulex Corp.*, Appeal No. 2012-1309, 2013 U.S. App. LEXIS 20411, at *20 (Fed. Cir. Oct. 7, 2013) (citing *Kinetic Concepts, Inc. v. Smith & Nephew, Inc.*, 688 F.3d 1342, 1366 (Fed. Cir. 2012) (finding invention nonobvious when none of the “reference[s] relate to the [problem] described in the patents” and no evidence was proffered “indicating why a person having ordinary skill in the art would combine the references”).

“An invention is not obvious just ‘because all of the elements that comprise the invention were known in the prior art;’ rather a finding of obviousness at the time of invention requires a ‘plausible rational [sic] as to why the prior art references would have worked together.’” *Broadcom*, 2013 U.S. App. LEXIS 20411, at *21-22 (quoting *Power-One, Inc. v. Arrtesyn Techs., Inc.*, 599 F.3d 1343, 1351 (Fed. Cir. 2010)). Indeed, the Supreme Court made clear that “rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR*, 550 U.S. at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). Here, there is no rational underpinning for

the combinations of references relied upon by the Board and therefore the obviousness rejections should be reversed.

A. The Board Committed Legal Error By Refusing To Consider XACP’s Timely Arguments Against The Combination of Yahoo, Tatham And Liu.

As an initial matter, the Board refused to consider XACP’s arguments and evidence regarding the combination of Yahoo, Tatham, and Liu, erroneously considering those arguments to be “untimely” because “arguments pertaining to the combination of Tatham and Yahoo that were not raised . . . but could have been.” (JA20).

Contrary to the Board’s findings, XACP’s arguments were focused on the combination of Liu with Tatham *and* Yahoo, not the combination of Tatham and Yahoo alone. (*See* JA3204-5). It was Facebook—not XACP—that was focused on Tatham and Yahoo alone. To the contrary, XACP argued that “[a]lthough [Facebook] provides arguments for combining [Yahoo] and Tatham to allegedly provide the Transmitting/Transmission limitations present in each of claims 1-32 and 76-146, it provides none for the combination of Liu with [Yahoo] and Tatham with respect to the Transmitting/Transmission.” (*See* JA3204-5 (citing JA3004-06)). Indeed, the combination of Yahoo, Tatham and Liu was first proposed by Facebook after XACP’s request to reopen and procedurally could not have been

addressed earlier. XACP's arguments regarding the deficiencies in the combination of Liu with Yahoo and Tatham thus were timely and should have been considered by the Board.

B. The Board Committed Legal Error By Failing To Provide Any Rational Underpinning To Combine Yahoo, Tatham And Liu.

The Board also committed legal error because it never provided any rational underpinning for combining Yahoo, Tatham and Liu. Indeed, the Board provided no explanation as to how or why one of ordinary skill in the art would have found it obvious to combine all three references to satisfy the limitations of pending claims 1-32 and 76-146. As such, the Board's ruling runs counter to settled Supreme Court precedent in *KSR*, which requires an explicit analysis when a conclusion of obviousness is based on interrelated teachings of multiple prior art references. *See KSR*, 550 U.S. at 418.

The Board, like Facebook, focused on Tatham and Liu alone:

Pertaining to the combination of Tatham and Liu, Liu discloses a computer network in which end users may collaborate and may receive and store applications or "applet" while Tatham also discloses a network in which users may collaborate. We agree with [Facebook] that it would have been obvious to one of ordinary skill in the art to have combined Tatham and Liu since both Tatham and Liu discloses similar computer systems, each of which would have been known to one of ordinary skill in the art, and combining features of such known computer networks would have resulted in no more than the predictable result of a computer system in which

applications may be downloaded (or “transmitted”) to end users.

(JA20).

The Board’s justification for the combination of Tatham and Liu fails to provide sufficient rational underpinning for the combination of those two references, much less for the combination of Yahoo, Tatham, and Liu. (*See also* JA3204-05). This Court recently explained: “[a]lthough the obviousness analysis is somewhat flexible, a district court’s conclusions with respect to obviousness must find support in the record.” *Plantronics*, 724 F.3d at 1354. The Board bears the same obligation.

In this case, the Board refers speculatively to what users *may* do, without any citation to where either reference teaches or suggests such collaboration. Indeed, the Board fails to provide any record support for its conclusion of obviousness, instead simply assuming that “an ordinary artisan would be awakened to modify prior art in such a way as to lead to an obviousness rejection.” This is precisely the error on which the *Plantronics* Court reversed the lower court’s obviousness rejection. *Id.*

The Board’s justification rests on little more than the observation that Tatham and Liu “disclose similar computer systems” and the Board’s conclusory statement, without record support, that “combining features of such known computer networks would have resulted in no more than the

predictable result of a computer system in which applications may be downloaded (or ‘transmitted’) to end users.” (JA20). Even the Board’s assertion of similarity between Liu and Tatham relies on the conclusory statement that “Liu discloses a computer network in which end users *may* collaborate and *may* receive and store applications or ‘applet’ while Tatham also discloses a network in which users *may* collaborate.” (JA20) (emphasis added). The Board’s conclusory analysis is inadequate and erroneous under Supreme Court and this Court’s precedent. *E.g.*, *KSR*, 550 U.S. at 418; *St. Jude Med., Inc.*, 2013 U.S. App. LEXIS 18834, at *25-26. Accordingly, the Board’s rejection of claims 1-32 and 76-146 as allegedly obvious over the combination of Yahoo, Tatham, and Liu should be reversed.

C. The Board Erred By Providing No Rational Underpinning To Combine Tatham, Herz And Liu.

As with Yahoo, Tatham and Liu, the Board committed legal error by failing to provide any rational underpinning for the combination of Tatham, Herz and Liu. Indeed, the Board did not address or even acknowledge XACP’s arguments and evidence. (JA2628-2645; JA8-21; JA2-5). Accordingly, the Board’s obviousness decision with respect to Tatham, Herz and Liu likewise runs counter to *KSR* and this Court’s precedent, which require an explicit analysis when a conclusion of obviousness is based on

interrelated teachings of multiple prior art references. *See, e.g., KSR*, 550 U.S. at 418; *Plantronics*, 724 F.3d at 1354. Accordingly, the rejection of claims 1-32 and 76-146 as obvious over the combination of Tatham, Herz, and Liu should be reversed.⁷

D. The Board Erred By Providing Insufficient Rational Underpinning To Combine Miller And Liu.

The Board attempted to justify the Miller and Liu combination by explaining:

Miller discloses a computer network that permits multiple users to collaborate and/or transact business (¶ [0003]). Liu also discloses a computer network in which users collaborate and further discloses downloading (or “transmitting”) code to a computer of an end user (col. 2, ll. 10-18). We agree with [Facebook] that it would have been obvious to one of ordinary skill in the art to have combined Miller and Liu at least because both references disclose computer networks in which users collaborate and the combination of two such known similar systems would have resulted in no more than the predictable result of a computer network in which users collaborate and receive transmissions (a known operational characteristic of computer networks).

⁷ Even had the Board adopted Facebook’s purported reasoning for the combination, which it did not, that purported rationale would not have been sufficient to justify combining Tatham, Herz and Liu. Like the Board, Facebook provided no motivation or record support to combine all three references, and instead argued only for the combination of Tatham and Liu. (*See* JA3263-64). And even if Tatham and Liu were the sole basis for the rejection, as discussed in Section II.B above, the Board’s justification for that combination is deficient.

(JA19). The Board’s conclusory and unsupported explanation fails under *KSR* and this Court’s precedent. *KSR*, 550 U.S. at 418 (“rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”) (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)); *Plantronics*, 724 F.3d at 1354.

Nothing in the cited references supports the Board’s erroneous conclusions. The cited portion of Liu states (in reference to a locally running application on the user end system) that “[s]uch locally running applications may include an interactive web page, an interactive game application, or an interactive spreadsheet.” (JA3460 2:7-18). This teaching is inconsistent with the type of use contemplated by Miller, which states that “in a preferred embodiment, the environment is implemented using web browser technology, which allows functions to be provided *with a minimum of programming and facilities communication over the Internet.*” (JA3562 ¶ [0263]) (emphasis added). Modifying Miller as proposed the Board (JA18) would be counter to the goal of minimizing programming and facilities communication over the Internet. Miller thus teaches away from Liu, and it would be improper to combine the references for this reason. *See In re Grasselli*, 713 F. 2d 731, 743 (Fed. Cir. 1983); *see also Broadcom*, 2013

U.S. App. LEXIS 20411, at *20 (“While a prior art reference may support any finding apparent to a person of ordinary skill in the art, prior art references that address different problems may not, depending on the art and circumstances, support an inference that the skilled artisan would consult both of them simultaneously.”). Just as in *Broadcom*, Miller and Liu are directed to different problems and therefore, do not support an inference that one of skill in the art would have been motivated to combine them as suggested by the Board. *See Broadcom*, 2013 U.S. App. LEXIS 20411, at *21-22.

Moreover, Liu is entitled “Apparatus, method and system for providing network security for *executable code* in computer and communications networks.” (JA3454). As such, the entire purpose of Liu is to provide security to executable code in networks. Facebook concedes—as it must—that “Miller does not expressly disclose transmitting . . . an executable component.” (JA2992). Accordingly, there would be no reason for one of skill in the art to consider the network security improvements promised by Liu, nor are the alleged improvements necessary to Miller in the absence of any transmitted executable code in Miller. As discussed above, Miller seeks to minimize programming and facilities communication over the Internet and makes no mention of transmitting an application object

including an executable component across the Internet. The fact that Liu allegedly solves a problem that is created by its own apparatus, method and system does not provide a motivation to combine Liu with Miller, which not only does not suffer from the problem, but also teaches away from the solution.

The Board provides no other explanation as to why one of ordinary skill in the art would make the suggested modifications to achieve the asserted combination or how combining the alleged teaching of Liu with Miller would meet the limitations admitted to be missing from Miller. Accordingly, the Board's rejection of claims 1-32 and 76-146 as obvious over Miller in view of Liu should be reversed.

III. Even If The Board's Asserted Combinations Were Proper, Its Findings That Those Combinations Taught The Transmitting/Transmission Limitations Are Not Supported By Substantial Evidence.

As explained in the sections that follow, in addition to the Board's failure to justify the purported combinations of prior art, the Board's determinations of the scope and content of the prior art and the differences between the prior art and the claimed invention are not supported by substantial evidence. Accordingly, all of the obviousness rejections should be reversed.

A. The Board’s Finding That The Combination of Yahoo, Tatham And Liu Teaches The Transmitting/Transmission Limitations Is Not Supported By Substantial Evidence.

Each of pending claims 1-32 and 76-146 recites the Transmitting/Transmission limitations. The Board erroneously rejected XACP’s arguments and evidence that Tatham and Yahoo fail to disclose or suggest “transmitting the community,” and instead adopted wholesale Facebook’s reasoning without independent analysis. (JA19 citing JA3260-64). Although the Board asserted that “Patent Owner does not sufficiently demonstrate a difference between delivering applications to a computer (as disclosed by Yahoo) and the claimed ‘transmitting’” (JA19), none of Yahoo, Tatham and Liu reveals, alone or in combination, teaches or suggests the Transmitting/Transmission limitations. Indeed, the Facebook Reply relied upon by the Board (JA3260-64) does not provide substantial evidence to demonstrate that the cited prior art teaches or suggests the claimed Transmitting/Transmission limitations.

Facebook admits that Tatham does not teach or suggest the claimed “Transmitting/Transmission limitations.” (JA3016) (“Tatham does not expressly disclose transmitting the created community, including the at least one application object, with the application object including an executable component.”). With respect to Yahoo, the Board relied upon Facebook’s

misleading and unsupported arguments that XACP's own documents "affirmatively acknowledge as prior art Yahoo! and its use of Java technologies to transmit applications." (JA3261 citing JA3113-21).

Specifically, Facebook argued that:

One document attached to the Harvey Declaration states, for example, that the Envelopment system will "set up games which are JAVA applications of the sort generally found on game sites (like Yahoo games)." ([Harvey Decl.], Ex. C at 1 (under "Description") (underlining added).) Another document that the patent owner cites to claim prior invention actually lists "Yahoo games" as among the "**Closest Known Prior Art**" to Envelopment. (*Id.*, Ex. D, at pages 3-4 (bold in original).)

(JA3261). The Harvey Declaration, however, actually explains the working of inventor Harvey's own Envelopment system that *predated* both Yahoo and Liu as described in Section I above. (JA3098-3107). The Harvey Declaration merely includes a passing reference to Yahoo games as an example of a game site, and does not state that Yahoo teaches the claimed Transmitting/Transmission limitations. Likewise, the cited "closest known prior art" in the Harvey Declaration is a list of items associated with "delivery," "connection" and "value," without any explanation of what the items on the list teach, much less any admission that any of the listed items, including "Yahoo games," teaches any claimed limitation. (*See* JA3120-21).

More importantly, the Yahoo games cited in the documents supporting the Harvey Declaration do not refer to the Yahoo reference on

which the Board's rejection depends. Indeed, these supporting documents were generated *before* publication of that Yahoo reference. Therefore, the Harvey Declaration does not provide any evidence concerning the reference itself, much less that the Yahoo reference teaches the claimed Transmitting/Transmission limitations.

As to the actual Yahoo reference, the portions cited by Facebook and relied upon by the Board teach no more than delivering applications to a computer. Facebook cites the following portions of Yahoo as allegedly teaching the Transmitting/Transmission limitations:

Java is a software language that can be understood and used by different computer platforms. It is convenient primarily because *it delivers applications to your computer by means of very quick downloads* - usually just a minute or two, if that. Java is most often used to create a program or screen environment independent of your browser.

(JA3261 (citing JA2948)) (emphasis in original).

When you click on the *Chat* link on the home page, your browser downloads the Java chat program (it doesn't take long). After it's in place, you can see who else is in the room and begin chatting (see Figure 14-8).

Id. (citing JA2937). The claimed limitation regarding "transmitting the created community," however, requires more than "delivering applications" under a proper claim construction.

In construing claims in a reexamination, claim terms are given their “broadest reasonable construction;” what is “reasonable,” must take into account “the specification and teachings in the underlying patent.” *In re Suitco Surface, Inc.*, 603 F.3d 1255, 1260 (Fed. Cir. 2010). The Board’s “broadest reasonable construction” standard does not give it “an unfettered license to interpret claims to embrace anything remotely related to the claimed invention. Rather, claims should always be read in light of the specification and teachings in the underlying patent.” *Suitco*, 603 F.3d at 1260.

It is well understood that claim construction begins “with the words of the claim.” *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1324 (Fed. Cir. 2002). Those words “are generally given their ordinary and customary meaning,” as “a person of ordinary skill in the art in question at the time of the invention” would have understood them. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (*en banc*). In that context, the specification is “the single best guide to the meaning of a disputed term.” *Phillips*, 415 F.3d at 1315 (quotation marks omitted). “Ultimately, the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim.” *Renishaw PLC v. Marposs Societa’*

per Azioni, 158 F.3d 1243, 1250 (Fed. Cir. 1998); *see also Medrad, Inc. v. MRI Devices Corp.*, 401 F.3d 1313, 1319 (Fed. Cir. 2005).

Here, the Board failed to follow this Court’s precedent by failing to apply a proper broadest reasonable construction to “community” and “transmitting the created community” that was consistent with the ’629 patent’s specification. The Board then relied on its impermissibly overbroad interpretation of these terms to reject all pending claims.

On appeal to the Board, XACP explained “that a ‘community’ is ‘information and at least one function ... that may be accessed ... through a communication network’ and that Roseman ‘fails to disclose the claimed “community.”’” (JA1671-72). In the copending litigation, the district court came to a similar conclusion and rejected Facebook’s proposed broad interpretation of “community” as simply a virtual location. (JA2029). Rather, in light of the intrinsic record of the ’629 patent, the court interpreted “community” as “*information and the at least one application object that was selected by the user relating to a specific transaction, interaction, and/or an expression of interest that may be accessed and/or interacted with by a plurality of users with common interests through a private or public communications network, such as web pages or an Internet site.*” (JA2527-28) (emphasis added).

In contrast, the Board impermissibly found “that a ‘community’ includes any group of persons or entities in common.” (JA2640). Such a broad construction is inconsistent with the intrinsic record, which confirms that “community” is comprised of information and application objects. Inserting the Board’s construction of “community” nonsensically results in “transmitting a community,” meaning that “any group of persons or entities in common” would be “conveyed from one point to another.”

Claim 1 recites, *inter alia*, “receiving community identification *information*,” “receiving a selection of at least one *application object*,” “creating a community based on the community identification *information* and the at least one *application object*” and “transmitting the created community.” (JA2775) (emphasis added). The ’629 patent specification discloses:

Upon entering a community, a user may access content objects, such as subscription objects, *application objects*, or other content, which form the community. A user automatically *receives content objects* that are updated. Interaction includes using the various *application objects downloaded to the user*, such as interacting with another user in the chat area.

(JA46 5:14-20).

A configuration editor may allow a user to build a community, designate *content and application objects*, subscribe to subscription objects, and add other information associated with the community.

(JA47-48 8:67-9:3).

The intrinsic record therefore describes a “community” as being created based on application objects and being interacted with through the application objects downloaded to users. (JA46 5:14-20). As a result, in the context of the term “community,” the limitation “transmitting the created community” plainly refers to *transmitting at least one application object of the created community*. This is precisely what the district court correctly ruled in the copending litigation. (JA2532).

The Board’s erroneous claim construction is further highlighted by its construction of “transmitting the created community.” The patent teaches that the system distributes applications having a message component and an executable component that connects a user with a specific community and launches the community. (JA28 Abstract; JA45 3:39-45; *see also* JA46 5:51-53, JA50 13:17-29 and JA51 15:28-34 and 39-50).

In the ’629 patent, that message component provides the community identity information and is described, for example, as follows:

The message component *describes the community, invites the user to join the community, and provides instructions*. In the present example, the message component greets the user, informs the user that the community is named “The William Henry Harrison Historical Preservation Society,” [HHHP Society] describes the community, and invites the user to join.”

(JA45 4:59-64 (emphasis added); *see also* JA50 13:62-14:9). The transmitted application object may then cause transmission of additional application objects to the user's computer, where the executable component allows the user to access and interact with the community. (JA45 4:47-5:11; JA50 13:22-29). The Board ignored the Patent's teachings and instead found that "transmitting a community, as recited in claim 1, indicates that the community is conveyed from one point to another." (JA2633). There is no teaching in the '629 Patent specification concerning conveying "from one point to another" "groups of persons or entities" in common or otherwise. Indeed, that is not what the invention is about, and is utterly inconsistent with the specification. In contrast, the district court's construction of the terms "community" and the Transmitting/Transmission limitations are consistent with a broadest reasonable construction of the claim language in light of the specification, and should be adopted by this Court.

Because the Board's erroneous construction of the Transmitting/Transmission limitations present in all of pending claims 1-32 and 76-146 led to the rejection of those claims over Yahoo in view of Tatham and Liu, the rejection should be reversed.

B. The Board's Finding That The Combination Of Tatham, Herz And Liu Teaches The Transmitting/Transmission Limitations Is Not Supported By Substantial Evidence.

The Board also committed legal error in adopting Facebook's reasoning to reject XACP's arguments and supporting evidence that "the combination of Tatham, Herz and Liu fails to disclose or suggest the Transmitting/Transmission limitations. (JA18 (citing JA3206 and JA3263-66)). In that context, the Board asserted:

For example, as [Facebook] points out, Liu discloses that "an 'applet' ... may be downloaded ... to the user end system" (Third Party Requester's Reply, dated January 17, 2012, p. 31, citing Liu, col. 2, 11. 8-18). Patent Owner does not demonstrate a difference between transmitting an applet (i.e., an application) by downloading to a user end system and the claimed feature of "transmitting."

(JA18).

Indisputably, Tatham and Herz do not teach or suggest the claimed Transmitting/Transmission limitations. Facebook conceded that "Tatham does not expressly disclose the transmission of at least one 'application object' with 'an executable component' to the user" (JA3263) and made no mention of Herz with respect to that limitation.

A review of the record reveals that Liu also lacks any teaching to supply the missing limitations and the Board's decision to the contrary lacks substantial evidence to support it. The cited portion of Liu (*see* JA20)

teaches no more than downloading an applet to an end user system. As discussed in Section III.A above, the Transmitting/Transmission limitations properly construed require more than transmitting an applet, much less just an executable component. Instead both “*information and the at least one application object . . . that may be accessed and/or interacted with . . . through a private or public communications network, such as web pages or an Internet site*” must be transmitted. (JA2527-28). Therefore, Liu does not teach the missing Transmitting/Transmission limitations.

Accordingly, the rejection of claims 1-32 and 76-146 as allegedly obvious over Tatham in view of Herz and Liu should be reversed.

C. The Board’s Finding That The Combination of Miller And Liu Teaches The Transmitting/Transmission Limitations Is Not Supported By Substantial Evidence.

The Board erroneously rejected XACP’s arguments and supporting evidence that Miller and Liu fail to disclose or suggest the Transmitting/Transmission limitations and instead adopted Facebook’s reasoning. (JA18 (citing JA3206 and JA3263-66)).

Facebook conceded that Miller does not teach the claimed Transmitting/Transmission limitations. (JA2989) (conceding that “Miller does not expressly disclose the transmission of at least one ‘application object’ with ‘an executable component.’”). Neither does Liu. Liu teaches

no more than downloading an applet, which as explained in Section III.A above, does not meet the claimed Transmitting/Transmission limitations under a proper claim construction.

Accordingly, the Board's rejection of claims 1-32 and 76-146 as obvious in view of Miller and Liu should be reversed.

IV. The Board's Anticipation Findings Are Not Supported By Substantial Evidence.

A. The Board's Finding That Roseman Anticipates Claims 1-32 Is Not Supported By Substantial Evidence And Should Be Reversed.

It is well-established that "unless a reference discloses within the four corners of the document not only all of the limitations claimed but also all of the limitations arranged or combined in the same way as recited in the claim, it cannot be said to prove prior invention of the thing claimed and, thus, cannot anticipate under 35 U.S.C. § 102." *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1371 (Fed. Cir. 2008); *see also Abbott Laboratories v. Sandoz, Inc.*, 544 F.3d at 1345 (Fed. Cir. 2008). Put differently, claims cannot be "treated . . . as mere catalogs of separate parts, in disregard of the part-to-part relationships set forth in the claims and that give the claims their meaning." *Lindemann Maschinenfabrik GMBH v. Am. Hoist & Derrick Co.*, 730 F.2d 1452, 1459 (Fed. Cir. 1984).

Contrary to the Board’s ruling that Roseman anticipates claims 1-32, Roseman fails to teach at least: (1) “said at least one application object including an executable component;” and (2) the Transmitting/Transmission limitations as required by claims 1-32. Accordingly, the Board’s ruling should be reversed.

Although the Board found that “Roseman discloses transmitting ‘an application object’ and an ‘executable component’ (e.g., an ‘invitation card’)” (JA13) (citing JA2640), Roseman teaches no more than an *image* that is sent from the host to the participants’ local computers. During the course of the virtual conference, participants can provide inputs *to the host* and *the host* modifies the image in response, *e.g.* marking up a document. (JA3511 7:54–60). The participant cannot, himself, modify the image. (*Id.*) Instead, the participant may only communicate with the host’s computer, which in turn modifies the image. In contrast, the claimed “application object” includes an “executable component,” which “*may contain all applications necessary to view and interact in a community.*” (JA50 14:66 – JA51 15:8) (emphasis added). Because Roseman lacks an executable component, it does not teach transmitting, or receiving a transmission of, at least one application object including an executable component as required by claims 1-32.

Nevertheless, the Board contended the Roseman “invitation card” is an “application object.” (JA13). At most, however, the “invitation card” of Roseman is a user interface that permits the invitee to gain access to the community, *e.g.* conference. (JA3509-10 4:21-27, 5:53-63) (the “invitation card” “provides access for issuing commands to the host.”).

By stating that the “invitation card” icon “provides access,” however, Roseman indicates that the “icon” itself does not provide the functionality for those options, but merely provides a mechanism, *i.e.*, an interface, to enable the conference participant to send commands to the host that invoke the options. Tellingly, the ’629 patent distinguishes between a user interface and an application object:

Additionally, clients 110 may contain client application module 125, where client applications comprise content, subscription objects, *user interface*, *application objects*, and other content, which will be described in greater detail below. (JA46 6:8-12).

Moreover, claims 2 and 10 expressly recite that “transmitting the created community” is different from “transmitting a user interface.”⁸ Claim 2, for example, states: “The method according to claim 1, wherein the step

⁸ In the district court action, the parties stipulated that the term “user interface” means “the junction between a user and a computer program, such as a set of commands or menus through which a user communicates.” (JA2025). Roseman’s description of the “invitation card” conforms to this definition.

of transmitting the created community further comprises transmitting the created community and a user interface.” (JA2775). Under the doctrine of claim differentiation, “different words or phrases used in separate claims”—in a single or related patent—“are presumed to indicate that the claims have different meanings and scope.” *Andersen Corp. v. Fiber Composites, LLC*, 474 F.3d 1361, 1369 (Fed. Cir. 2007) (quotation marks omitted); *see also Omega Eng’g, Inc., v. Raytek Corp.*, 334 F.3d 1314, 1334 (Fed. Cir. 2003) (rule applicable to terms “in the same patent or related patents”).

The Board focuses on the fact that the invitation card is an “active icon” (JA 3510 5:57) “for issuing commands to the host” (JA 3510 5:58), asserting that “Patent Owner does not adequately explain how an ‘active icon’ that issues ‘commands’ is not an ‘executable component,’ since one of ordinary skill in the art would have understood that code that issues commands is code that is executing (*i.e.*, an ‘executable component’) in order to issue the command.” (JA14). The Board provides no explanation beyond this conclusory statement for why one of skill in the art would have understood that the Roseman icon constitutes an “application object” with an “executable component.”

Simply because the icon is described as “active,” does not mean that it is an “application object” including an “executable component.” Indeed, the

teaching of Roseman confirms that an “icon” is merely a link, and not itself an “executable component.” (JA3511 8:1-13 (“The private work area outside the window [of the conference room] *displays the icons representing the invitee’s programs and data files*. The invitee drags an icon onto the table, as shown in Fig. 11, and double clicks (or actuates) the icon. *The icon blooms into an image dictated by the type of file which the icon represents (graphic, text, etc.).*”) (emphasis added); see also JA3513 11:18-26, 12:11-13).

The fact that the Roseman icon causes *the host computer* to perform certain functions indicates that any “executable component” resides on the host or server computer and was not in fact transmitted along with the invitation card. As such, the Board’s finding that the icon is more than a user interface (JA14) conflicts with the teachings of Roseman and therefore, is not supported by substantial evidence.

Even if the “invitation card” of Roseman were considered more than a user interface, it nevertheless constitutes at most a “message component” and not an “executable component.” The ’629 patent teaches that a message component and an executable component are distinct from one another:

The central controller sends a transmission, such as an e-mail, to the invited users based on the information provided by the creator. *The transmission includes a message component and an executable component.*

(JA45 4:54-58; *see also* JA51 15:28-34, JA55 24:33-53, JA56 25:51-54). The message component “describes the community, invites the user to join the community, and provides instructions.” (JA45 4:54-64).

In contrast, the ’629 patent specification ascribes distinctly different characteristics to the executable component:

Further, *an executable component may contain all applications necessary to view and interact in a community... An executable component may assist an invited user in accepting and registering for a community and obtaining the proper information and/or files to access and interact with a community.* When an executable component is launched, it may read a user’s identification number, such as from the name of the zip archive, and may connect to the server to begin setup and download of a client application for a community.

(JA50-51 14:66–15:8 (emphasis added); *see also* JA51 16:12-18).

Claim 1, as amended, clearly confirms this distinction between the two components. This is consistent with embodiments disclosed in the ’629 patent, where the “message component” includes the claimed “community identification information,” based upon which the community is created, whereas the “executable component” relates to the application object upon which the community creation is also based. (*See, e.g.*, JA45 4:54-58, JA51 15:28-34, JA55-56 24:33-53, 25:51-54). In contrast to the Roseman

invitation card, the '629 patent invitation *application* includes *both* a “message component” and an “executable component.”

Likewise, the Board also erroneously relied upon the Roseman “key” as a disclosure of an “executable component,” adopting Facebook’s contention that “Roseman also discloses a ‘key’ that is ‘passed to the Delegate [i.e., user]’ [JA3511 7:8] and disclosed as ‘a code’ [JA3510 6:60-61].” (JA14). Although the Board found that “Patent Owner does not sufficiently demonstrate how a ‘code’ that one of skill in the art would have understood performs functions by ‘executing’ and is, hence, an ‘executable component,’ differs from the ‘executable component’ as recited in amended claim 1, for example,” (JA14), the “keys” of Roseman alone or in combination with the “invitation card” cannot satisfy the limitations of the application object because the “keys” are not an executable component.

Indeed, the Board misunderstood Roseman’s “key” in rejecting the claims. Fundamentally, a “key” is data or a code for gaining access to something else. This is what Roseman teaches. (JA3510). The Board neither points to any portion of Roseman that teaches or suggests that the key functions by executing, nor provides any explanation beyond the above conclusory statement for why one of skill in the art would have understood that the code performs functions by executing.

The “key” of Roseman is consistently described as data or a code for gaining access to the conference room, not an executable in its own right. (*See, e.g.*, JA3510 6:61-63 (“The Requester can leave the key in his local computer, in the form of an icon residing on the display, as shown in FIG. 8. Anyone entering the office can use the key.”); *see also* JA3510-11 6:64–7:12). The ’629 patent clearly distinguishes between data or content and executable components. (*See, e.g.*, JA45 4:54-58, JA51 15:28-34, JA55-56 24:33-53, 25:51-54). Whether the keys are distributed electronically, are attached to an invitation or may be passed to others is irrelevant to the analysis. Because the “key” of Roseman cannot be executed but rather is merely a code that may be provided to gain access to the conference running on the host server, the “key” is not an executable component.

* * *

Thus, Roseman does not teach an “application object” including an “executable component,” and therefore, does not teach the Transmitting/Transmission limitations. Accordingly, the Board’s finding that Roseman anticipates claims 1-32 is not supported by substantial evidence and should be reversed.

B. The Board's Finding That Claims 1, 2, 4-7, 9, 10, 12-15, 17, 18, 20-23, 25, 26 and 28-31 Are Anticipated By Sarin Is Not Supported By Substantial Evidence And Should Be Reversed.

As with Roseman, the Board erred in finding that claims 1, 2, 4-7, 9, 10, 12-15, 17, 18, 20-23, 25, 26 and 28-31 were anticipated by Sarin.

Although the Board found that “Sarin discloses sharing a ‘specified collection of *objects*’ [JA1935, left column] and a server that ‘proceeds to “give” these objects to the participant” (JA15), neither of the sections of Sarin referred to by the Board nor any other part of Sarin teaches: (1) the Transmitting/Transmission limitations; and (2) “said at least one application object including an executable component,” both of which are required by claims 1, 2, 4-7, 9, 10, 12-15, 17, 18, 20-23, 25, 26 and 28-31.

Like Roseman, Sarin is directed to a conferencing system in which an image is shared among the conference participants. (JA1935, top of right column). The Board focused upon Sarin’s disclosure of “objects and activities” that an application server “gives” to conference participants. (JA15) (citing JA1936, column 2). None of the “objects and activities” described in Sarin, however, is an “application object including an executable component” that is transmitted as required by claims 1, 2, 4-7, 9, 10, 12-15, 17, 18, 20-23, 25, 26 and 28-31.

Although Sarin uses the term “application object,” that alone is not sufficient to anticipate the subject matter of the claims. The term must be used to connote the same structure as that recited in the claims. *Applied Medical Resources Corp. v. U.S. Surgical Corp.*, 147 F.3d 1374, 1379-80 (Fed. Cir. 1998) (“The [prior art] cannot anticipate the ... patent simply by possessing identically named parts, unless these parts also have the same structure or otherwise satisfy the claim limitations, and were understood to function in the same way by one skilled in the art”). The application objects of Sarin are merely data and do not include the claimed “executable component.”

Specifically, Sarin provides the following examples of such objects that can be shared in a conference:

- High-level application objects, e.g., *documents or circuit designs*.
- Objects used to facilitate participant interaction in the conference, e.g., *agendas, minutes, proposals and votes*, or a queue of “requests” for permission to enter commands.
- Objects exchanged by the server and front-ends to determine run-time *parameters such as the maximum bandwidth and size* of objects that can be supported.

(JA1935, right column) (emphasis added). Each of these different types of objects comprise some form of data, or content, that can be manipulated by a

conference participant (in the case of documents and circuit designs) or that is otherwise used to support transmissions during the conference. In other words, in Sarin, an “application object” is an object containing data that is *associated with* an application.

In contrast, the ’629 patent teaches—and the amended claims explicitly require—that an “application object” *contains* an application, *i.e.*, an “executable component,” which performs a specified function. (*See, e.g.*, JA55 23:54-55 (“All elements of the game are present in the executable included in the application object...”). Other examples of application objects that perform functions are described (JA45 4:31-40), *e.g.*, a chat application object, a scheduling application object, and a photo reviewing application object.

Indeed, the ’629 patent expressly distinguishes between “content” and “application objects.” (*See, e.g.*, JA45 4:31-44 (“The community creating module permits the creator to create a community, and designate *applications and content presented in the community by a user interface.* The applications in the present example include a chat application object..., a schedule application object..., a pledge application object..., a photo album application object.... Content in present examples includes information about upcoming fund raising events and meetings for the

society, information about current funds collected, biographical information about William Henry Harrison, and other information) (emphasis added); *see also* JA46 6:53-57).

The Board misunderstood this distinction in its decisions. Nowhere does Sarin disclose that its so-called “application objects” include an “executable component.” Unlike the disclosure of “giving” content to the users, Sarin does not teach or suggest that functionality, or activities, are transmitted to the users.

Moreover, any reliance on the Application FE and Bitmap FEs (front-end functions) described in Sarin is clearly misplaced. At most, those front-end functions are limited to user interfaces. The ’629 patent distinguishes between a user interface and an application object. (*See* JA46 6:8-12); *compare* claims 2 and 10 that expressly recite that “transmitting the created community” is different from “transmitting a user interface.”

Indeed, Sarin’s description of front-end functions is consistent with the meaning of user interface in the ’629 patent and the stipulated claim construction of “user interface” in the concurrent litigation.⁹ Sarin differentiates between front-end functions and host server functions with front-end functions limited to “interfacing with a user’s display and input

⁹ *See* note 8, *supra*.

devices and managing the set of objects that he is working with at any given time.” (JA1935, left column). Sarin further contrasts the host server functions with the limitations of the Application FEs:

Objects shared in a conference are updated only by the application-server; the application-FEs’ copies are “read-only” in that an application-FE cannot modify its copy except in response to updates received from the application-server . . . Such updates are generated by the application-server according to its own criteria.

(JA1935, right column). As such, the Application-FEs of Sarin do not include an “executable component,” but rather are limited to interfacing with a user’s display and input devices and managing the set of objects that the user is working on at any given time.

Additionally, the discussion of “upcalls” and “downcalls” in Sarin is consistent with the user interface character of the Application-FEs and Bitmap-FEs. (JA1939, left column and JA1942-44). These are merely calls between the front-end user interfaces and the host servers. The fact that the Application-FEs and Bitmap-FEs of Sarin communicate with the executable programs *on the host server* using predetermined “upcalls” and “downcalls” does not teach the claimed Transmitting/Transmission limitations. Indeed, the Application-FE does not have an “executable component,” but merely serves as a user interface for forwarding commands to the application-server, where the executable code resides:

Commands initiated by a participant are forwarded by the participant's application-FE to the application-server (via facilities that Ensemble provides) for processing; the application processes these commands, updating one or more shared objects or generating error messages as appropriate.

(JA1935 right column) (emphasis added).

Likewise, the Bitmap FE of Sarin is merely a shared display and lacks an “executable component,” and is at most a user interface to executable code on the host server:

The application server manages some set of application objects, e.g., documents, circuits, spreadsheets, etc., and presents some view of these objects on the shared bitmap . . . These application objects are internal to the application-server. . . they are visible to the participants only indirectly via whatever view the application-server presents in the shared bitmap, and *may be manipulated by participants only by entering commands that are parsed and executed by the application-server* according to its own syntax and semantics.

(JA1937, left column) (emphasis added).

For the foregoing reasons, Sarin fails to teach at least: (1) the Transmitting/Transmission limitations; and (2) “said at least one application object including an executable component,” both of which are required by each of the claims rejected by the Board as anticipated by Sarin.

Accordingly, the Board’s Decision that Sarin anticipates those claims should be reversed.

V. The Board’s Obviousness Rejection of Claims 3, 11, 19 And 27 Over Sarin And Yahoo Is Erroneous And Should Be Reversed.

The Board stated that “Patent Owner does not present additional arguments in support of claims 3, 11, 19 and 27 with respect to Sarin and Yahoo.” (JA16). The Board overlooked or ignored XACP’s express arguments that “Claims 3, 11, 19 and 27 depend from claims 1, 9, 17, and 25, respectively, and therefore also require the limitations that are missing from Sarin. Combining Yahoo with Sarin does nothing to remedy these deficiencies of Sarin described in detail in Section IV.C above.” (JA2824-25; JA3184). For at least these additional reasons, claims 3, 11, 19 and 27 are not rendered obvious by the combination of Sarin and Yahoo.

CONCLUSION

For each of the foregoing reasons, the Court should reverse the Board's rejections of the claims of the '629 patent.

October 25, 2013

Respectfully submitted,

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ADDENDUM



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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FACEBOOK, INC.
Appellant, Requester

v.

CROSS ATLANTIC CAPITAL PARTNERS, INC.
Patent Owner, Cross-Appellant

Appeal 2013-001716
Inter partes Reexamination Control No. 95/001,070
Patent 6,519,629 B2
Technology Center 3900

Before ALLEN R. MACDONALD, KARL D. EASTHOM, and STEPHEN
C. SIU, *Administrative Patent Judges*.

SIU, *Administrative Patent Judge*.

DECISION ON REQUEST FOR REHEARING

In papers filed March 5, 2013, Patent Owner requests a rehearing under 37 C.F.R. § 41.79 from the Decision on Appeal of the Patent Trial and Appeal Board, dated February 5, 2013. In the Decision, we affirmed the

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Examiner's rejection of claims 1-32 as anticipated by Roseman; claims 1, 2, 4-7, 9, 10, 12-15, 17, 18, 20-23, 25, 26, and 28-31 as anticipated by Sarin; claims 3, 11, 19, and 27 as unpatentable over Sarin and Yahoo; claims 1-32 and 76-146 as unpatentable over Miller and Liu; and claims 1-32 and 76-146 as unpatentable over Tatham, Liu, and either one of Yahoo or Herz (Decision 14).

A "request for rehearing must state with particularity the points believed to have been misapprehend or overlooked in rendering the Board's opinion reflecting its decision." 37 C.F.R. § 41.79(b)(1). Patent Owner argues that "the Board overlooked or misapprehended . . . Patent Owner's arguments for patentability" (Req. Reh'g 2).

In particular, Patent Owner argues "[t]he Board appears to have overlooked the arguments made by the Patent Owner in the Petition and accepted by the Director of the Central Reexamination Unit in granting the Patent Owner's Petition" with respect to new claims 76-146 (Req. Reh'g 3). In the Decision, Patent Owner's arguments pertaining to new claims 76-146 were fully addressed (Decision 10-14). Because Patent Owner's arguments were fully addressed, we disagree with Patent Owner' contention that Patent Owner's arguments were overlooked or misapprehended.

Patent Owner also argues that "[t]he Decision To Enter The Amendment With Amended Claims 1-32 And New Claims 76-146 Was Proper And Should Be Upheld" (Req. Reh'g 5). In the Decision, the

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decision to enter Patent Owner’s amendment was not disturbed. Therefore, Patent Owner’s argument is moot.

Patent Owner argues that “[t]he Board Improperly Refused to Consider Patent Owner’s Arguments Regarding The Filing Date Of The ‘629 Patent As Untimely” (Req. Reh’g 10). The Decision fully addressed Patent Owner’s arguments with respect to the filing date of the ’629 patent (*see e.g.*, Decision 11). Patent Owner does not indicate specifically how the Decision overlooks or misapprehends Patent Owner’s arguments.

Patent Owner argues that the Decision “has provided no basis not to consider Patent Owner’s arguments with respect to Miller and Liu” (Req. Reh’g 11). The Decision fully addressed Patent Owner’s arguments with respect to the Miller and Liu references (*see e.g.*, Decision 12). Patent Owner does not indicate specifically how the Decision overlooks or misapprehends Patent Owner’s arguments.

Patent Owner argues that “[t]he Board Improperly Refused To Consider Patent Owner’s Separate Arguments With Respect To Claims 8, 16, 24 and 32 As Untimely” (Req. Reh’g 12). In particular, Patent Owner argues that “claims 8, 16, 24 and 32 is directed to the same subject matter as the claims subject to six new grounds of rejection” and that “the new grounds of rejection were applied to entire claims, not particular limitations of those claims” (Req. Reh’g 13). However, as explained in the Decision, claims 8, 16, 24, and 32 are unamended and the new ground of rejection was not applied to the unamended features of claims 8, 16, 24, and 32.

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Patent Owner “requests that the Board consider the arguments submitted . . . [with respect to] claims 1-32 and 76-146 as unpatentable over Yahoo in view of Tatham and Liu” (Req. Reh’g 15). The Decision fully addressed these issues (*see e.g.*, Decision 9-13). Patent Owner does not indicate specifically how the Decision overlooks or misapprehends Patent Owner’s arguments.

Patent Owner re-iterates arguments previously presented and previously addressed in the Decision (Req. Reh’g 15-32) but does not demonstrate that the Decision overlooks or misapprehends Patent Owner’s arguments.

We have considered Appellant’s arguments but find no points that we have misapprehended or overlooked. Therefore, the Request for Rehearing is DENIED.

DENIED

FOR PATENT OWNER:

COOLEY LLP

ATTN: Patent Group

1299 Pennsylvania Avenue, NW, Suite 700

Washington, DC 20004

Appeal 2013-001716
Inter partes Reexamination Control No. 95/001,070
US Patent 6,519,629 B2

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
95/001,070	07/21/2008	6519629	0065431-1008	3890

68368 7590 02/05/2013
Barcelo, Harrison & Walker, LLP
2901 W. Coast Hwy
Suite 200
Newport Beach, CA 92663

EXAMINER

HUGHES, DEANDRA M

ART UNIT	PAPER NUMBER
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3992

MAIL DATE	DELIVERY MODE
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02/05/2013

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FACEBOOK, INC.
Requester and Appellant

v.

CROSS ATLANTIC CAPITAL PARTNERS, INC.
Patent Owner and Cross-Appellant

Appeal 2013-001716
Reexamination Control 95/001,070
Patent 6,519,629 B2
Technology Center 3900

Before ALLEN R. MACDONALD, KARL D. EASTHOM, and
STEPHEN C. SIU, *Administrative Patent Judges*.

SIU, *Administrative Patent Judge*

DECISION ON APPEAL

Appeal 2013-001716
Reexamination Control 95/001,070
Patent 6,519,629 B2

In response to our previous Decision on Appeal dated June 28, 2011 in which we entered new grounds of rejection of claims 1-32 (Decision 17), Patent Owner requests reopening prosecution under 37 CFR § 41.77(b)(1). Patent Owner appeals the Examiner's decision to reject claims 1-32 and new claims 74-146. We have jurisdiction under 35 U.S.C. §§ 134 and 306.

STATEMENT OF THE CASE

This proceeding arose from a request by Facebook, Inc. for an inter partes reexamination of U.S. Patent 6,519,629 B2, titled "System For Creating a Community for Users With Common Interests to Interact In," and issued to James Harvey, Andrew Fegly, Matt Hulan, and Robert Dekelbaum on February 11, 2003 (the '629 patent). Claims 1-32 were subject to inter partes reexamination (see, e.g., Request for *Inter Partes* Reexamination, dated July 21, 2008, pp. 4-5).

In our previous decision dated June 28, 2011, we entered new grounds of rejection as follows:

1. Claims 17-32 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,223,177 B1 ("Tatham");
2. Claims 1-32 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,608,636 B1 ("Roseman");
3. Claims 1, 2, 4-7, 9, 10, 12-15, 17, 18, 20-23, 25, 26, and 28-31 under 35 U.S.C. § 102(b) as being anticipated by Sunil K. Sarin & Irene Greif, "Software for Interactive On-Line Conferences," Massachusetts Institute of Technology, Laboratory for Computer Science, 1984 ("Sarin");

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4. Claims 24 and 32 under 35 U.S.C. § 103(a) as being unpatentable over Tatham and U.S. Patent no. 6,029,195 (“Herz”);
5. Claims 17-32 under 35 U.S.C. § 103(a) as being unpatentable over Tatham and Brad Hill, “*Yahoo! For Dummies*,” IDG Books Worldwide, Inc., 1999 (“Yahoo”); and
6. Claims 3, 11, 19, and 27 under 35 U.S.C. § 103(a) as being unpatentable over Sarin and Yahoo.

Responsive to our new grounds of rejection and in a paper filed July 28, 2011, Patent Owner requested reopening prosecution before the Examiner and “provided an amendment of the claims so rejected or new evidence relating to the claims so rejected, or both” pursuant to 37 CFR § 41.77(b)(1). Patent Owner also provided new claims 76-146.

In response to Patent Owner’s “amendment of the claims so rejected or new evidence relating to the claims so rejected, or both,” the Examiner stated that “[a]ll of third party requester’s (‘3PR’) proposed rejections as set forth in the Comments on the Patent Owner’s (‘PO’) Amendments (filed Oct. 29, 2011) are adopted and incorporated here by reference. As such, **claims 1-32 and 76-146 are rejected**” (Determination under 37 CFR 41.77(d) dated November 15, 2011, p. 2).

Thus, the Examiner appears to have maintained each of the six new grounds of rejection as enumerated above and in the previous Decision on Appeal and further rejected claims 1-32 and new claims 76-146 as follows:

- 1) Claims 1-32 and 76-146 under 35 U.S.C. § 103(a) as unpatentable over the combination of (“Miller”) and (“Liu”) or the combination of (“Tatham”), Liu, and either one of Yahoo or Herz;

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- 2) New claims 91-100, 122-131, 140, 141, 145, and 146 under 35 U.S.C. § 112, first paragraph as failing the written description requirement;
- 3) New claims 76-90, 101-112, 114-121, 132-139, 142-144 under 35 U.S.C. § 305 as impermissibly broadening the scope of the claimed invention.

The '629 patent describes communications protocols to enable users to interact and communicate in communities (col. 1, ll. 11-19). Claim 1, as amended, reads as follows:

1. A method for creating a community for users with common interests to interact in, the method comprising the steps of:
 - receiving a creation transmission from a registered user, the creation transmission indicating that the registered user desires to create a community;
 - receiving community identification information from the registered user;
 - receiving a selection of at least one application object from the registered user, said at least one application object including an executable component;
 - creating a community based on the community identification information and the at least one application object;
 - receiving at least one communications address designated by the registered user, the at least one communications address corresponding to a user to receive a created community; and
 - transmitting the created community, including the at least one application object, based in part on the at least one communications address.

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ISSUE

Did the Examiner err in rejecting or maintaining the rejection(s) of claims 1-32 and 76-146?

PRINCIPLES OF LAW

In rejecting claims under 35 U.S.C. § 102, “[a] single prior art reference that discloses, either expressly or inherently, each limitation of a claim invalidates that claim by anticipation.” *Perricone v. Medicis Pharm. Corp.*, 432 F.3d 1368, 1375 (Fed. Cir. 2005) (citation omitted).

The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, and (3) the level of skill in the art. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966).

“The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398, 416 (2007).

ANALYSIS

Claims 17-32 – Anticipation over Tatham and obviousness over Tatham and Yahoo; Claims 24 and 32 – Obviousness over Tatham and Herz

Claim 17 and claim 25, as amended, recite that the application object includes “an executable component” and “receiving a transmission of the

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created community, including the at least one application object.” In view of Patent Owner’s amendments to claim 17 and claim 25 and for reasons set forth in our previous Decision, we agree that Tatham fails to disclose the application object including “an executable component” and transmission of the community, including the application object (and the executable component) as now required by claim 17 and claim 25.

The Examiner and Requester do not provide additional arguments with respect to the Yahoo or Herz references or dependent claims 18-24 and 26-32.

The Examiner erred in maintaining the rejection of amended claims 17-32 as anticipated by Tatham or unpatentable over Tatham and Yahoo. The Examiner also erred in maintaining the rejection of claims 24 and 32 as obvious over Tatham and Herz.

Claims 1-32 – Anticipation over Roseman

Claim 1, as amended, recites that the application object includes “an executable component” and “transmitting the created community, including the at least one application object.” Claims 9, 17, and 25 have been similarly amended.

As we stated in our previous Decision, Roseman discloses transmitting “an application object” and an “executable component” (e.g., an “invitation card”) (Decision 13). Patent Owner argues that the “invitation card” of Roseman “is a user interface to facilitate the invitation process,” “is at most a message component and not an executable component,” and is “an icon” that “does not itself comprise an executable component” (Amendment

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and Request to Reopen Prosecution dated July 28, 2011, pp. 35, 36, 40). We disagree with Patent Owner.

Roseman discloses, for example, the invitation card is an “active icon” (col. 5, l. 57) “for issuing commands to the host” (col. 5, l. 58). Patent Owner does not adequately explain how an “active icon” that issues “commands” is not an “executable component,” since one of ordinary skill in the art would have understood that code that issues commands is code that is executing (i.e., an “executable component”) in order to issue the command. In addition, as Requester points out, Roseman also discloses a “key” that is “passed to the Delegate [i.e., user]” (col. 7, l. 8) and disclosed as “a code” (col. 6, ll. 60-61). Patent Owner does not sufficiently demonstrate how a “code” that one of skill in the art would have understood performs functions by “executing” and is, hence, an “executable component,” differs from the “executable component” as recited in amended claim 1, for example.

Patent Owner further argues that Roseman fails to disclose features recited in claims 8, 16, 24, and 32 that are unamended and not previously argued (Amendment and Request to Reopen Prosecution dated July 28, 2011, pp. 42-45). However, the “new grounds of rejection raised by the Board does not ‘reopen the prosecution’ . . . except as to that subject matter to which the new rejection was applied” (*Ex parte Burrowes*, 110 O.G. 599, 19404 C.D. 155 (Comm’r pat. 1904). Since the new ground of rejection was not applied to the unamended features of claim 8, 16, 24, and 32, which Patent Owner is now arguing (and Patent Owner did not previously provide arguments in support of these unamended features), Patent Owner’s new

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arguments pertaining to unamended features of claims 8, 16, 24, and 32 will not be considered.

Claims 1, 2, 4-7, 9, 10, 12-15, 17, 18, 20-23, 25, 26, ad 28-31 – Anticipation over Sarin

Claim 1, as amended, recites that the application object includes “an executable component and “transmitting the created community, including the at least one application object.” Claims 9, 17, and 25 have been similarly amended.

As we stated in the previous Decision, Sarin discloses sharing a “specified collection of *objects*” (p. 49, col. 1) and a server that “proceeds to ‘give’ these objects to the participant” (Decision 15). Patent Owner argues that Sarin fails to disclose that objects include “an executable component” (Amendment and Request to Reopen Prosecution dated July 28, 2011, pp. 47-51). We disagree with the Patent Owner.

As we previously stated, Sarin discloses that objects are “given” to a user and that the “objects and activities” (p. 50, col. 2) include “Add-Participant, Join-Conference, and Leave-Conference downcalls” (p. 50, col. 2), for example, which Patent Owner does not adequately demonstrate to differ from an “executable component.” For example, one of skill in the art would have understood an “executable component” to be any entity that executes an activity while Sarin discloses such entities that execute activities (e.g., adding participants or enabling participants to join or leave a conference).

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Claims 3, 11, 19, and 27 – Obviousness over Sarin and Yahoo

Patent Owner does not present additional arguments in support of claims 3, 11, 19 and 27 with respect to Sarin and Yahoo.

Claims 1-32 and new claims 76-146 – Obviousness over the combination of Miller and Liu or the combination of Tatham, Liu and one of Yahoo or Herz

Patent Owner argues that new claims 76 and 107 (and dependent claims 77-81 and 108-112) are patentable over both Roseman and Sarin because both Roseman and Sarin fail to disclose “vendor product[s]” or “information regarding ‘a vendor product or service’” as new claims 76 and 107 recite (Amendment and Request to Reopen Prosecution dated July 28, 2011, pp. 53-54). As previously indicated, “new grounds of rejection raised by the Board does not ‘reopen the prosecution’ . . . except as to that subject matter to which the new rejection was applied” (*Ex parte Burrowes*, 110 O.G. 599, 19404 C.D. 155 (Comm’r pat. 1904)). Also, amended or new claims must be directed to the same subject matter as the appealed claims (*Ex parte Comstock*, 317 O.G. 4, 1923 C.D. 82 (Comm’r Pat. 1923)).

In the present case, Patent Owner now submits proposed new claims (i.e., claims 76-81 and 107-112) that claim subject matter (i.e., “vendor products,” “vendor product or service”) for which our previous grounds of rejection did not apply. Nor are the proposed new claims directed to the same subject matter as the previously appealed claims. For example, the previously appealed claims are directed to transmitting a community based on a communications address while the proposed new claims 76-81 and 107-112 are specifically directed to presenting information associated with a

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vendor product or service. Indeed, previously appealed claim 1 does not recite a “presenting information” step at all much less a step in which “vendor product or service” information is presented. Since Patent Owner may not “reopen the prosecution” except as to subject matter which new grounds of rejection was applied and the now argued claim features recited in proposed new claims 76-81 and 107-112, at least, do not constitute subject matter which the new grounds of rejection were applied, such new claims are not properly presented for consideration.

While the Examiner had the option of refusing entry of the proposed new claims 76-146 as lacking claim amendments (or “evidence”) pursuant to 37 C.F.R. 41.77(b), the Examiner nevertheless entered the proposed new claims and has deemed the new claims as unpatentable based on the grounds stated above. In view of the Examiner’s entry of new claims 76-146, we will consider new claims in view of the proposed rejections and timely presented issues raised by the parties.

As Requester points out, the ‘629 patent was accorded a priority date of February 25, 2000, which Patent Owner did not previously dispute (Third Party Requester’s Reply, dated January 17, 2012, p. 16-17). Patent Owner now argues for the first time that the ‘629 patent is entitled to a priority date that is earlier than the previously determined priority date of February 25, 2000 (see, e.g., Patent Owner Comments, dated December 15, 2011, pp. 37-38 and 44). For at least the reasons set forth by the Requester, we agree that Patent Owner’s newly presented arguments pertaining to the priority date of the ‘629 patent are untimely presented (see, e.g., Third Party Requester’s Reply, dated January 17, 2012, pp. 16-19). Also, as stated above, “new

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grounds of rejection raised by the Board does not ‘reopen the prosecution’ . . . except as to that subject matter to which the new rejection was applied” (*Ex parte Burrowes*, 110 O.G. 599, 19404 C.D. 155 (Comm’r pat. 1904). Since Patent Owner could have but chose not to make arguments pertaining to priority and since such newly presented arguments are not necessitated by our new grounds of rejection as raised in our previous Decision, such newly presented arguments are deemed to have been waived and will not be considered.

Even assuming that Patent Owner’s untimely presented arguments pertaining to priority are considered, however, we agree with Requester that Patent Owner has failed to demonstrate support for an earlier priority date for at least the reasons set forth by Requester (Third Party Requester’ Reply, dated January 17, 2012, pp. 20-27).

Patent Owner also argues that the combination of Miller and Liu or the combination of Tatham, Herz, and Liu fails to disclose or suggest “the ‘transmitting’ limitation” or “transmitting the community” (Patent Owner’s Comments in Response to Determination Under 37 C.F.R. 41.77(d), filed December 15, 2011, p. 47). We disagree with Patent Owner for at least the reasons set forth by the Requester (Third Party Requester’s Reply, dated January 17, 2012, pp. 31-34). For example, as Requester points out, Liu discloses that “an ‘applet’ . . . may be downloaded . . . to the user end system” (Third Party Requester’s Reply, dated January 17, 2012, p. 31, citing Liu, col. 2, ll. 8-18). Patent Owner does not demonstrate a difference between transmitting an applet (i.e., an application) by downloading to a user end system and the claimed feature of “transmitting.”

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Patent Owner argues that Tatham and Yahoo fail to disclose or suggest “transmitting the community” (Patent Owner’s Comments in Response to Determination Under 37 C.F.R. 41.77(d), filed December 15, 2011, p. 45-47). We disagree with Patent Owner for at least the reasons set forth by the Requester (Third Party Requester’s Reply, dated January 17, 2012, pp. 28-31). For example, as Requester points out, Yahoo discloses a system that “delivers applications to your computer” (Third Party Requester’s Reply, dated January 17, 2012, p. 29, citing Yahoo, p. 267). Patent owner does not sufficiently demonstrate a difference between delivering applications to a computer (as disclosed by Yahoo) and the claimed “transmitting.”

Patent Owner argues that it would not have been obvious to one of ordinary skill in the art to have combined Miller and Liu (Patent Owner’s Comments in Response to Determination Under 37 C.F.R. 41.77(d), filed December 15, 2011, p. 40-44). Miller discloses a computer network that permits multiple users to collaborate and/or transact business (§ [0003]). Liu also discloses a computer network in which users collaborate and further discloses downloading (or “transmitting”) code to a computer of an end user (col. 2, ll. 10-18). We agree with Requester that it would have been obvious to one of ordinary skill in the art to have combined Miller and Liu at least because both references disclose computer networks in which users collaborate and the combination of two such known similar systems would have resulted in no more than the predictable result of a computer network in which users collaborate and receive transmissions (a known operational characteristic of computer networks).

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Patent Owner argues that it would not have been obvious to one of ordinary skill in the art to have combined Tatham, Yahoo and Liu (Patent Owner's Comments in Response to Determination Under 37 C.F.R. 41.77(d), filed December 15, 2011, p. 45). Patent Owner did not previously argue combinability of the Tatham and Yahoo references, both of which were previously cited in combination. Patent Owner's new arguments pertaining to the combination of Tatham and Yahoo that were not raised by Patent Owner but could have been raised previously are considered untimely and will not be addressed.

Pertaining to the combination of Tatham and Liu, Liu discloses a computer network in which end users may collaborate and may receive and store applications or "applet" while Tatham also discloses a network in which users may collaborate. We agree with Requester that it would have been obvious to one of ordinary skill in the art to have combined Tatham and Liu since both Tatham and Liu discloses similar computer systems, each of which would have been known to one of ordinary skill in the art, and combining features of such known computer networks would have resulted in no more than the predictable result of a computer system in which applications may be downloaded (or "transmitted") to end users.

Claims 91-100, 122-131, 140, 141, 145, and 146 (35 U.S.C. § 112, first paragraph) and claims 76-90, 101-112, 114-121, 132-139, 142-144 (35 U.S.C. § 305)

Affirmance of the rejection for the above-referenced claims based on Roseman, Sarin, combination of Sarin and Yahoo, combination of Miller and Liu, or the combination of Tatham, Liu and one of Yahoo or Herz

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renders it unnecessary to reach the propriety of the Examiner's decision to reject those claims on a different basis. *Cf. In re Gleave*, 560 F.3d 1331, 1338 (Fed. Cir. 2009). As such, we need not reach the propriety of the rejection of those claims over 35 U.S.C. § 112, first paragraph or 35 U.S.C. § 305.

CONCLUSION

The Examiner did not err in rejecting or maintaining the rejection(s) of claims 1-32 and 76-146.

DECISION

We affirm the Examiner's decision to reject or maintain the rejection of claims 1-32 under 35 U.S.C. § 102(e) as anticipated by Roseman; claims 1, 2, 4-7, 9, 10, 12-15, 17, 18, 20-23, 25, 26, and 28-31 under 35 U.S.C. § 102(e) as anticipated by Sarin; claims 3, 11, 19, and 27 under 35 U.S.C. § 103(a) as unpatentable over Sarin and Yahoo; claims 1-32 and 76-146 under 35 U.S.C. § 103(a) as unpatentable over Miller and Liu; and claims 1-32 and 76-146 under 35 U.S.C. § 103(a) as unpatentable over Tatham, Liu, and either one of Yahoo or Herz.

We reverse the Examiner's rejection of claims 17-32 under 35 U.S.C. § 102(e) as anticipated by Tatham; claims 24 and 32 under 35 U.S.C. § 103(a) as unpatentable over Tatham and Herz; and claims 17-32 under 35 U.S.C. § 103(a) as unpatentable over Tatham and Yahoo.

AFFIRMED

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Patent 6,519,629 B2

cu

(12) **United States Patent**
Harvey et al.

(10) **Patent No.:** **US 6,519,629 B2**
(45) **Date of Patent:** **Feb. 11, 2003**

(54) **SYSTEM FOR CREATING A COMMUNITY FOR USERS WITH COMMON INTERESTS TO INTERACT IN**

(75) Inventors: **Jamey Harvey**, Reston, VA (US);
Andrew Fegly, Falls Church, VA (US);
Matt Hulan, Rockville, MD (US);
Robert Dekelbaum, Silver Spring, MD (US)

5,734,901 A 3/1998 Sidhu et al. 712/220
5,754,939 A 5/1998 Herz et al. 455/3.04
5,796,393 A 8/1998 MacNaughton et al. 345/733
5,805,811 A 9/1998 Pratt et al. 709/206
5,867,799 A * 2/1999 Lang et al. 707/1
6,020,884 A 2/2000 MacNaughton et al. 345/329
6,029,195 A * 2/2000 Herz 709/219

OTHER PUBLICATIONS

(73) Assignee: **iKimbo, Inc.**, Reston, VA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 58 days.

Wutka, Mark et al., "JAVA Expert Solutions", Que Corporation 1997; Chapters 6, 10, 21 and 37.
Fregly, Andrew M., "Mechanisms for Eelectronic Documentation Distribution".

(21) Appl. No.: **09/968,386**

* cited by examiner

(22) Filed: **Oct. 2, 2001**

(65) **Prior Publication Data**

US 2002/0059379 A1 May 16, 2002

Primary Examiner—Moustafa M. Meky
(74) *Attorney, Agent, or Firm*—Cooley Godward LLP

Related U.S. Application Data

(60) Division of application No. 09/513,844, filed on Feb. 25, 2000, which is a continuation-in-part of application No. 09/264,988, filed on Sep. 15, 1998.

(51) **Int. Cl.**⁷ **G06F 13/00**

(52) **U.S. Cl.** **709/204; 709/203; 709/217**

(58) **Field of Search** **709/200, 201, 709/203, 204, 205, 217, 218, 219, 220, 223, 224, 232**

References Cited

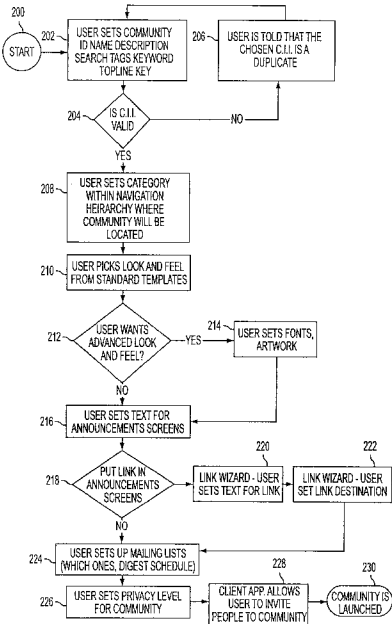
U.S. PATENT DOCUMENTS

5,600,364 A 2/1997 Hendricks et al. 725/9

(57) **ABSTRACT**

An Information and Application Distribution System (IADS) is disclosed. The IADS operates, in one embodiment, to distribute, initiate and allow interaction and communication within like-minded communities. Application distribution occurs through the transmission and receipt of an "invitation application" which contains both a message component and an executable component to enable multiple users to connect within a specific community. The application object includes functionality which allows the user's local computer to automatically set up a user interface to connect with a central controller which facilitates interaction and introduction between and among users.

32 Claims, 15 Drawing Sheets



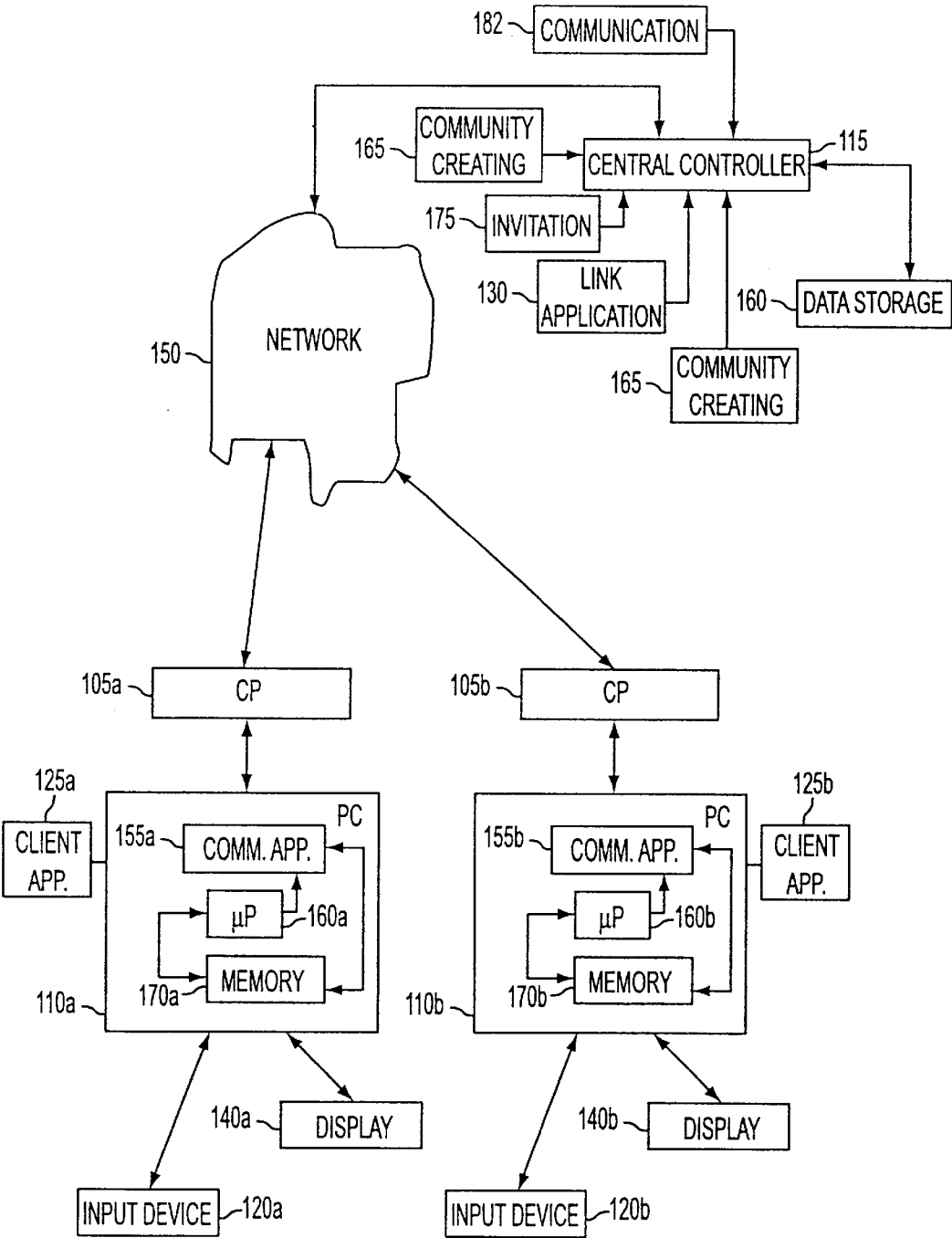


FIG. 1

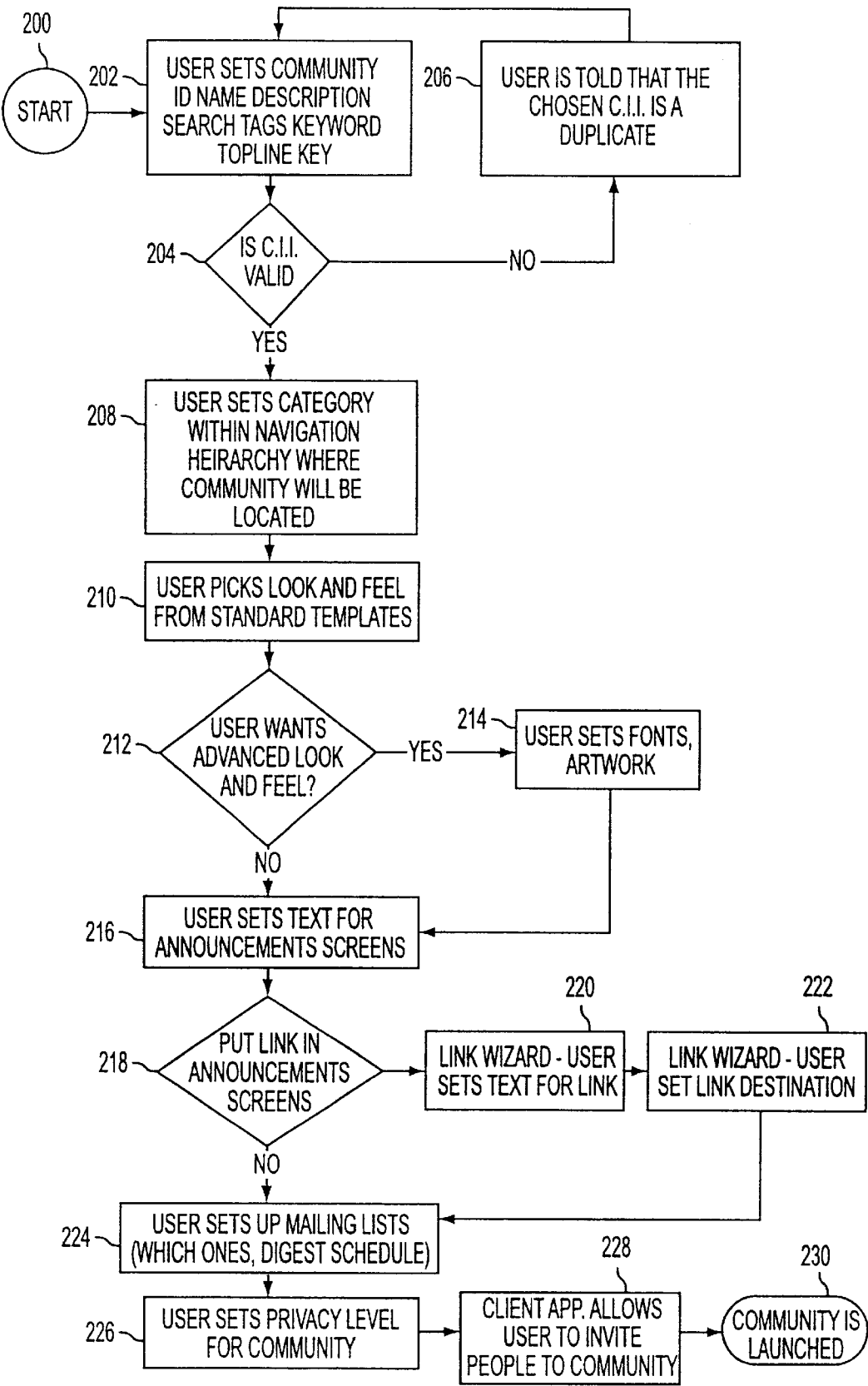


FIG. 2

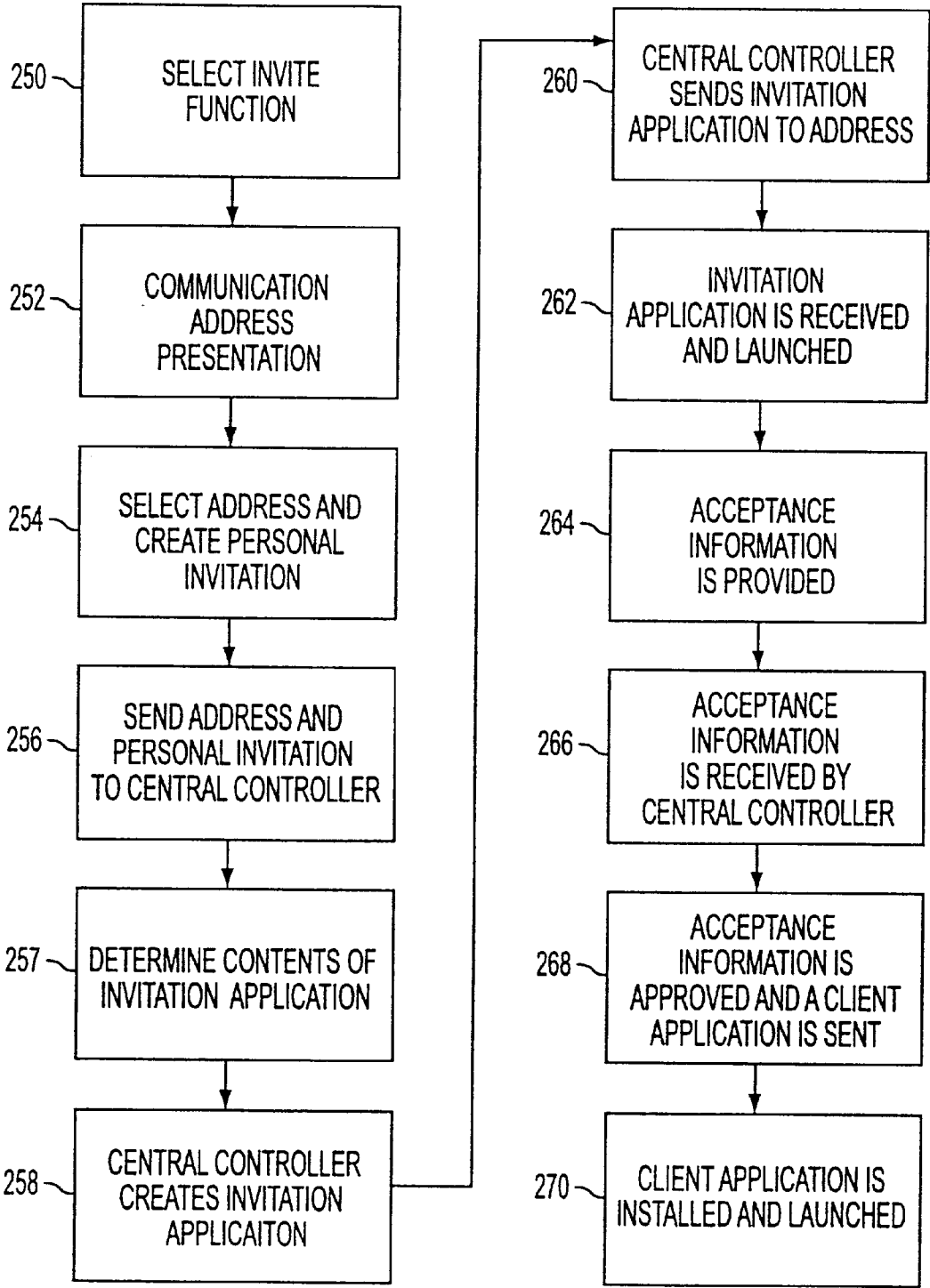


FIG. 3

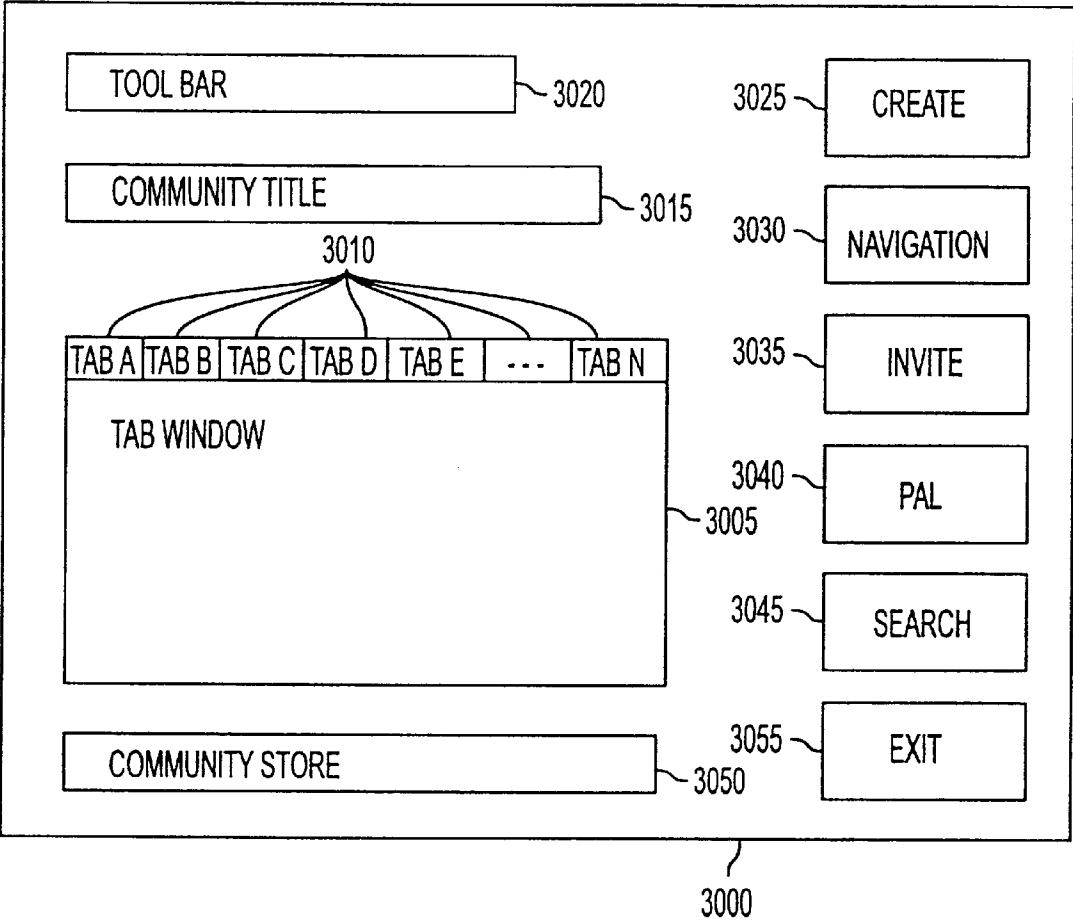


FIG. 4

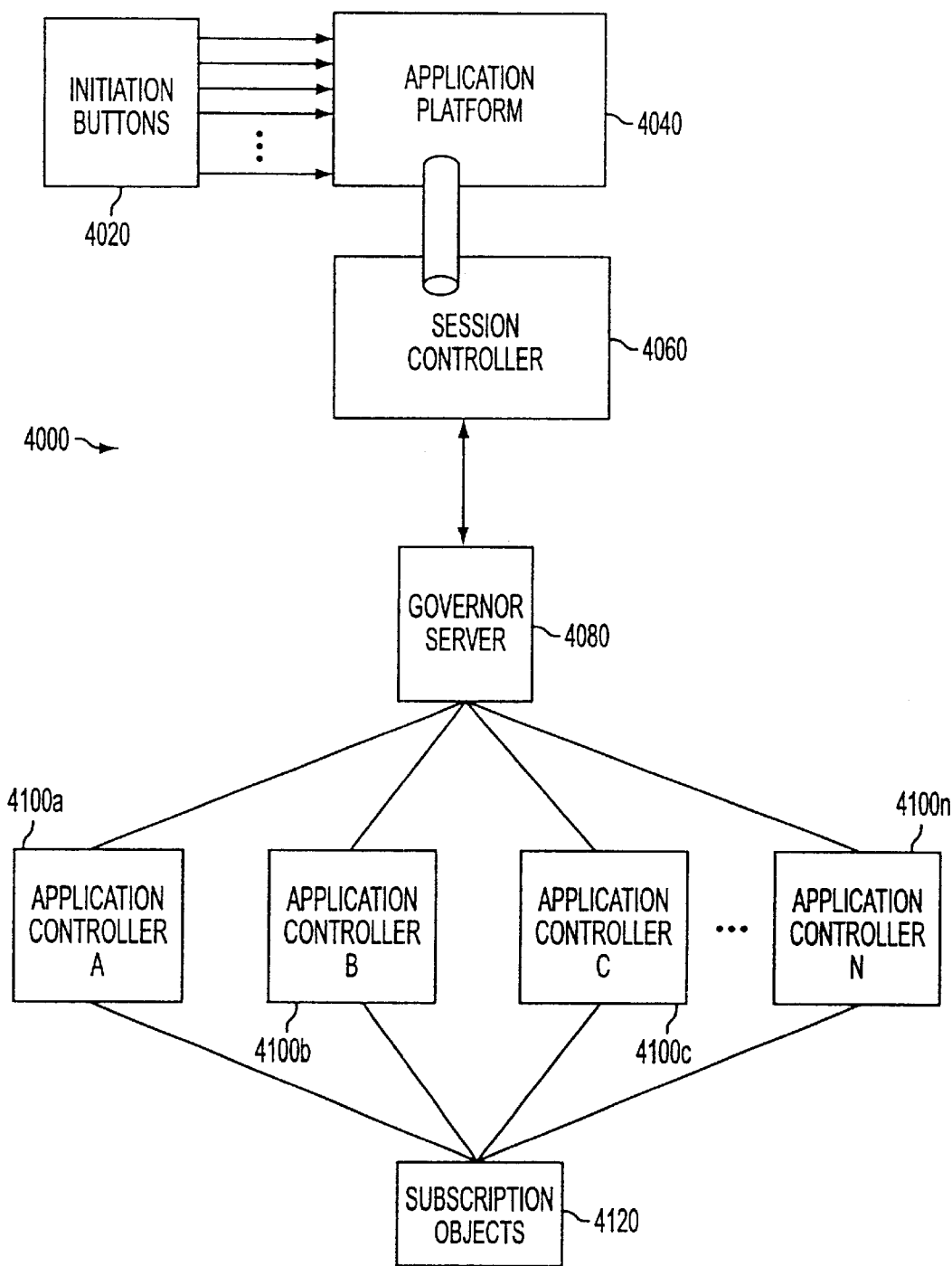


FIG. 5

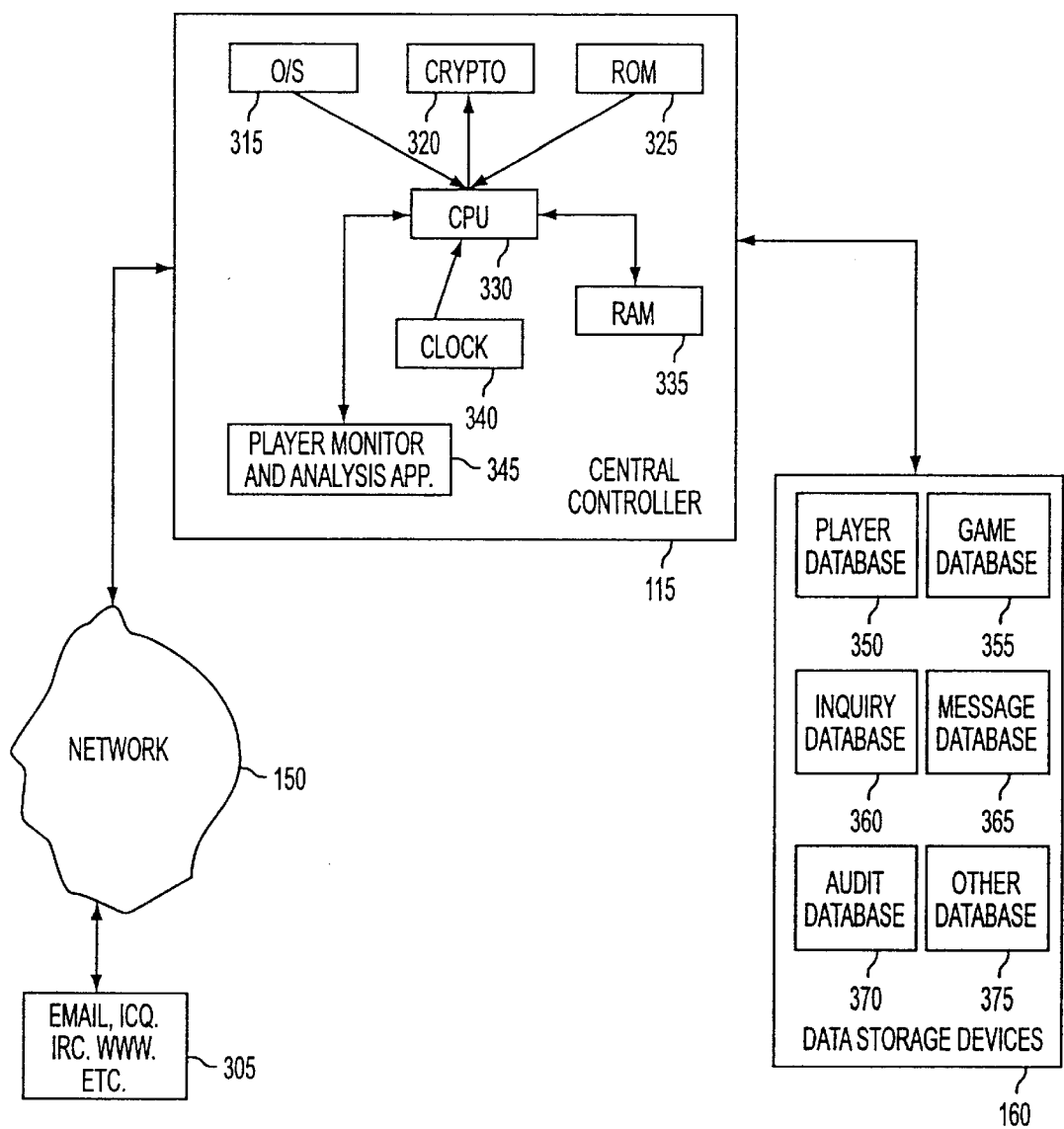


FIG. 6

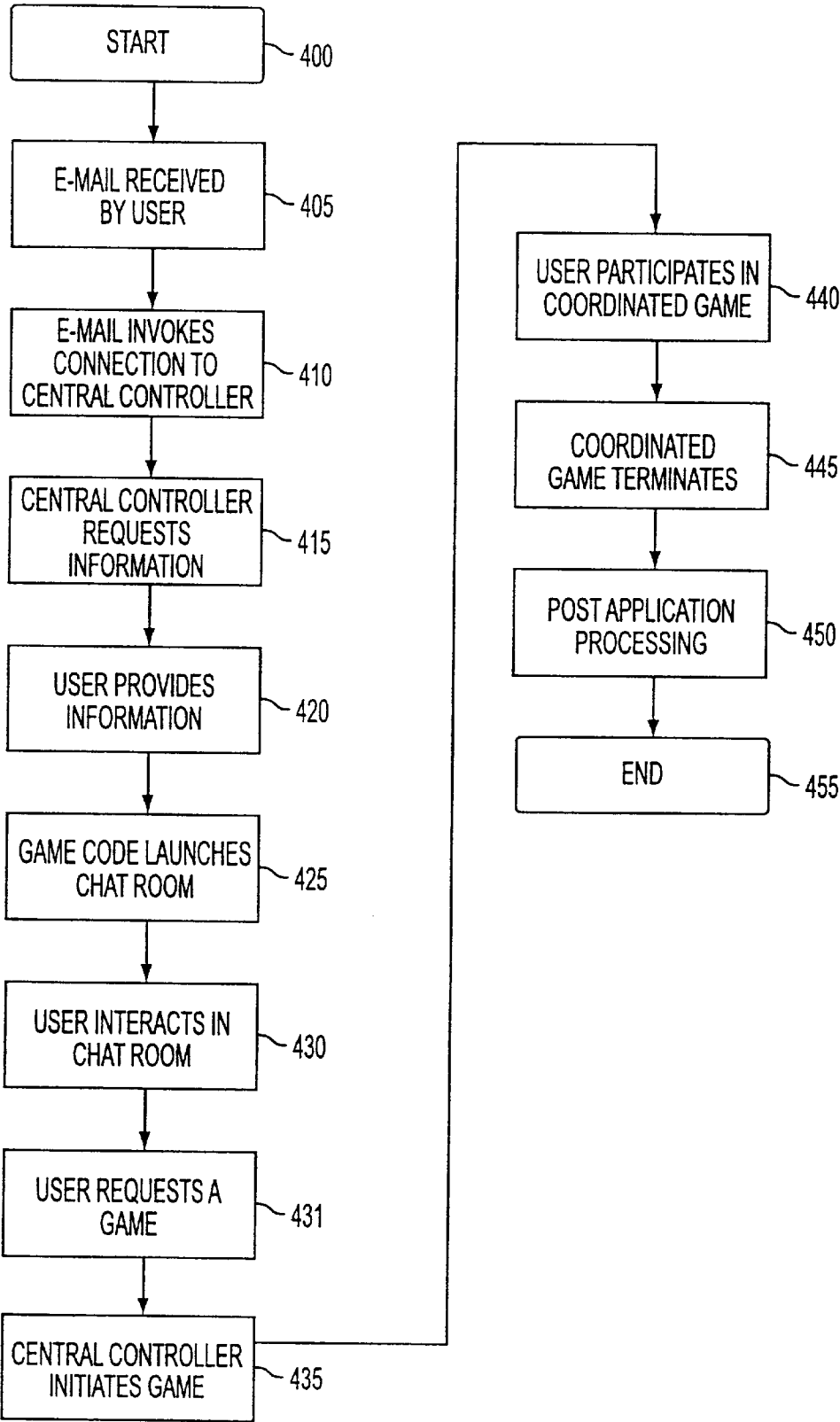


FIG. 7

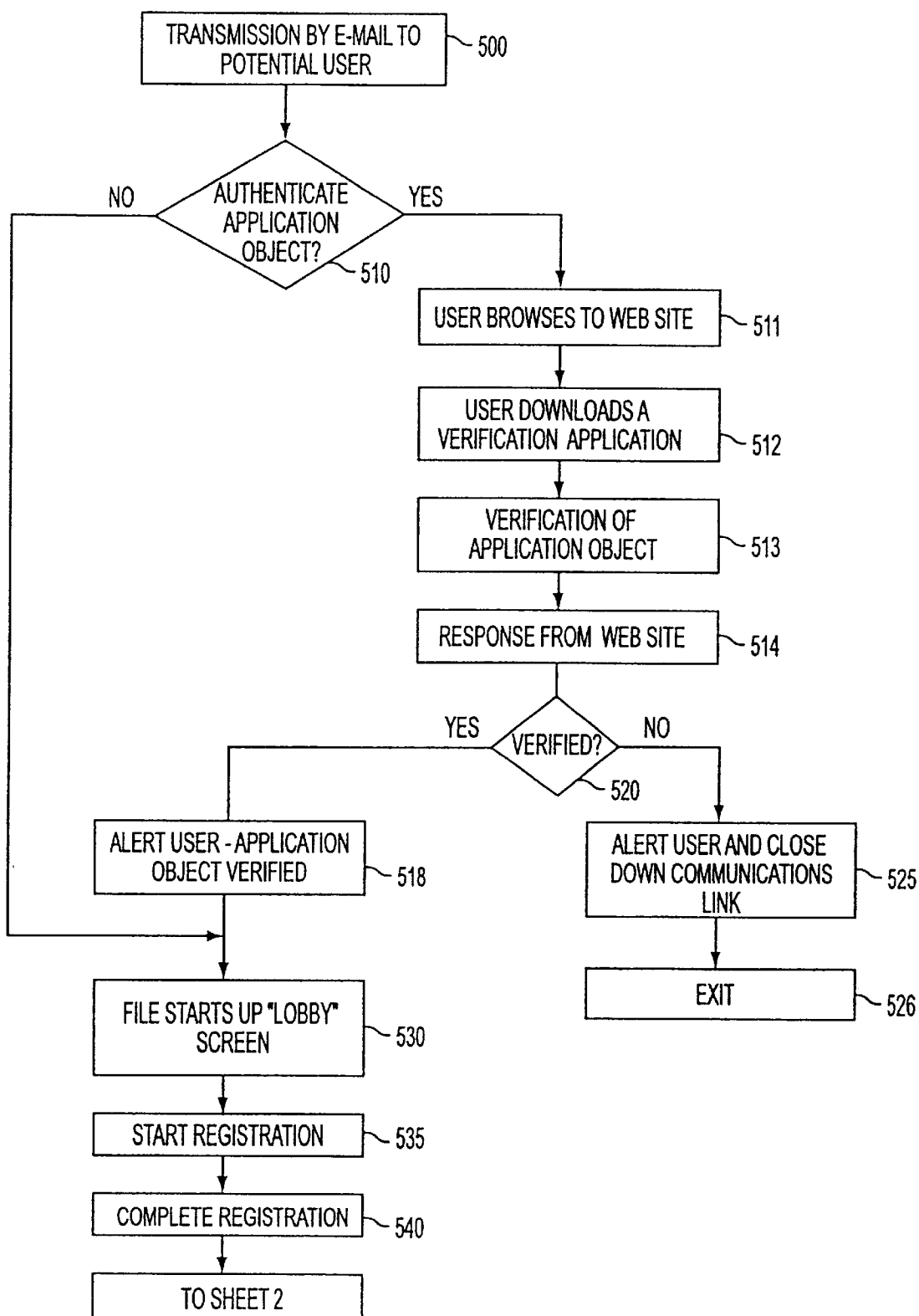


FIG. 8A-1

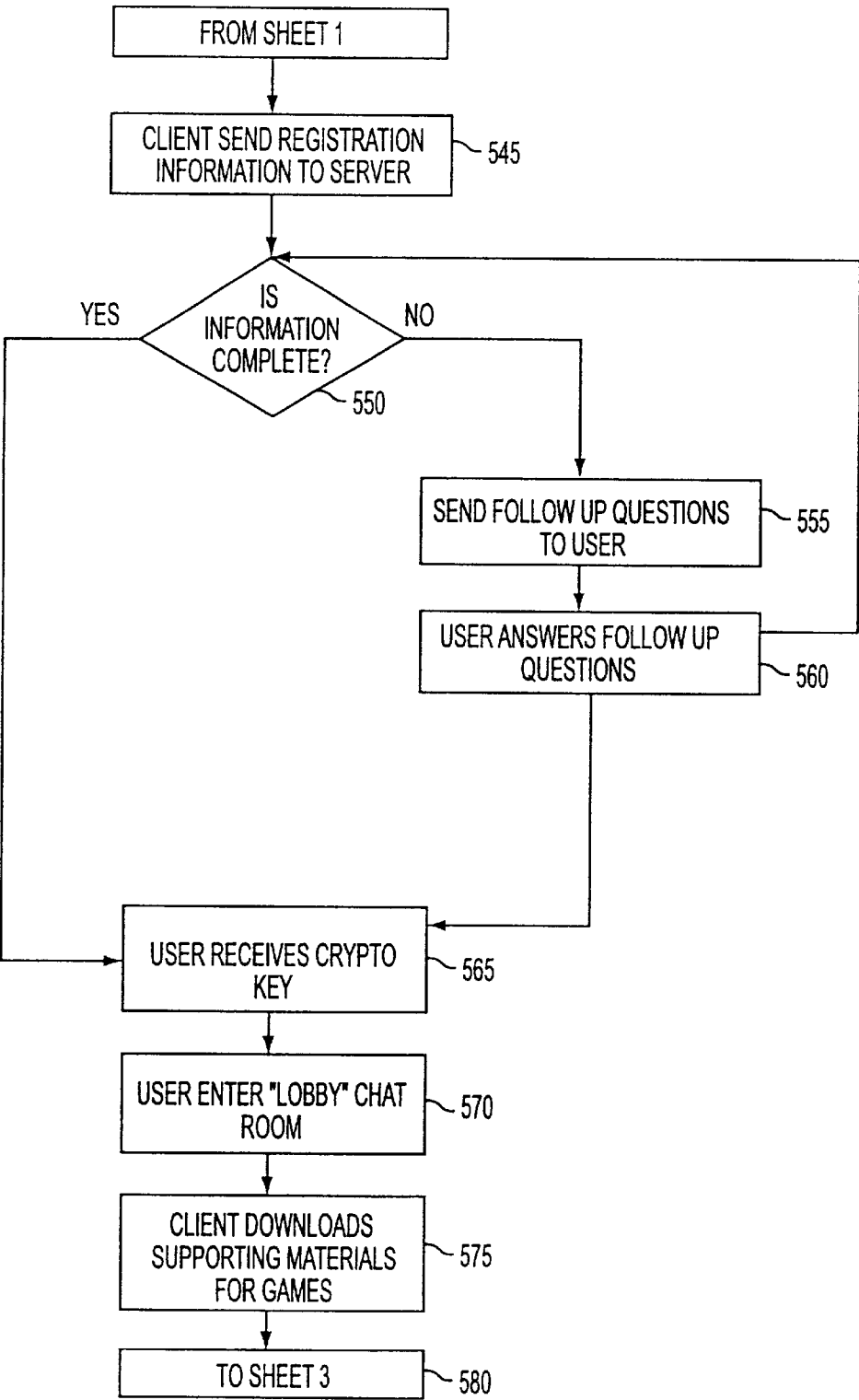


FIG. 8A-2

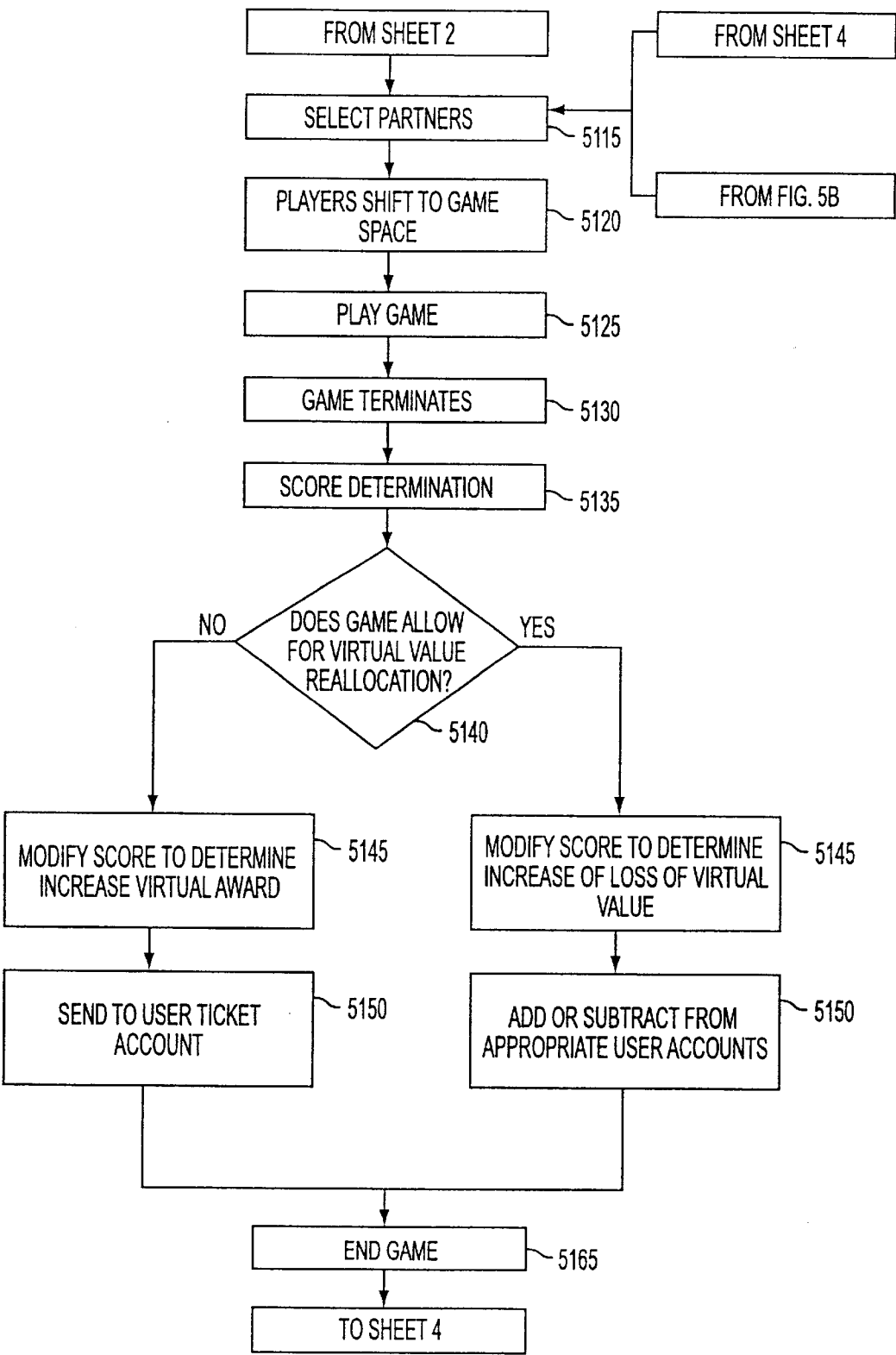


FIG. 8A-3

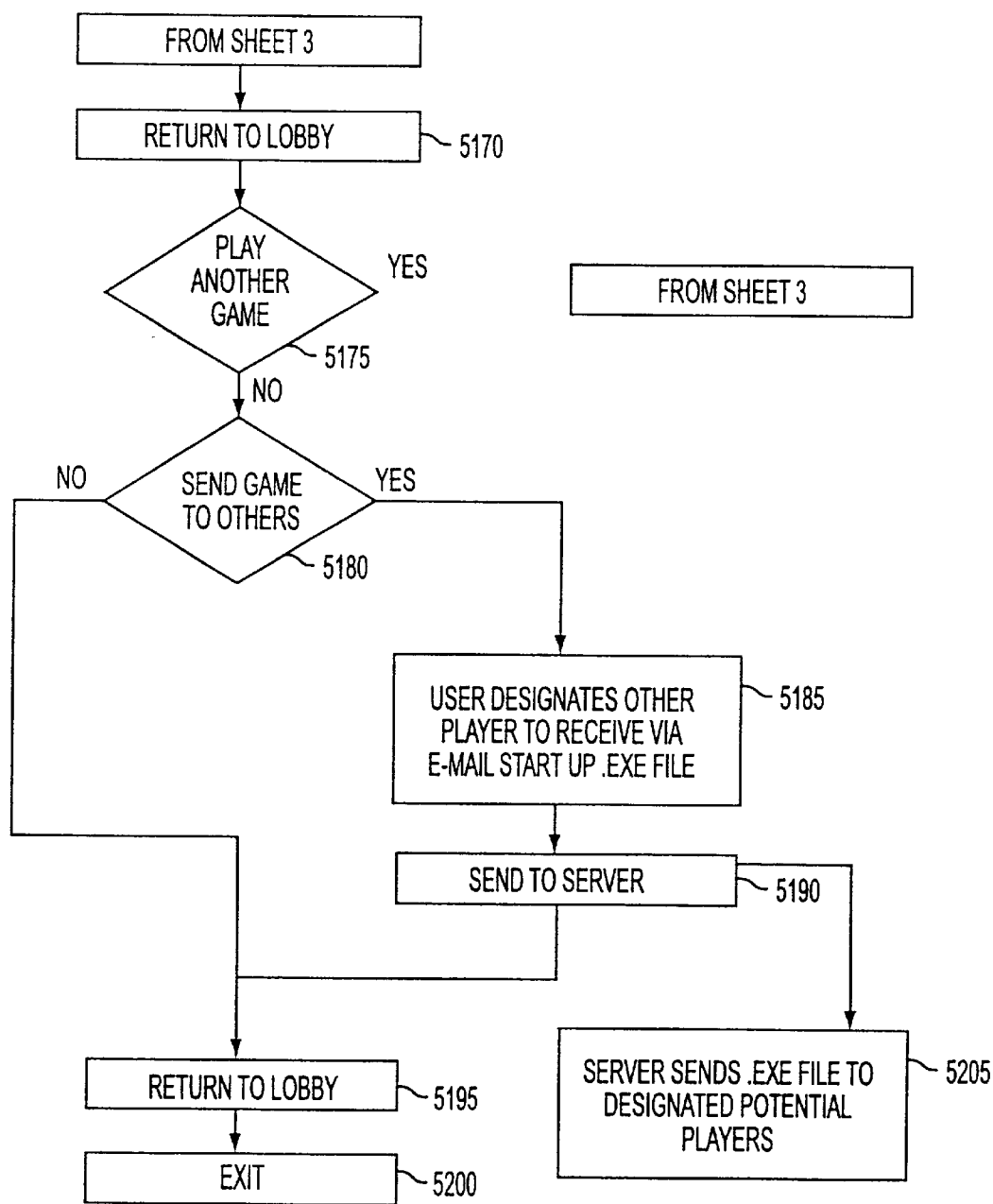


FIG. 8A-4

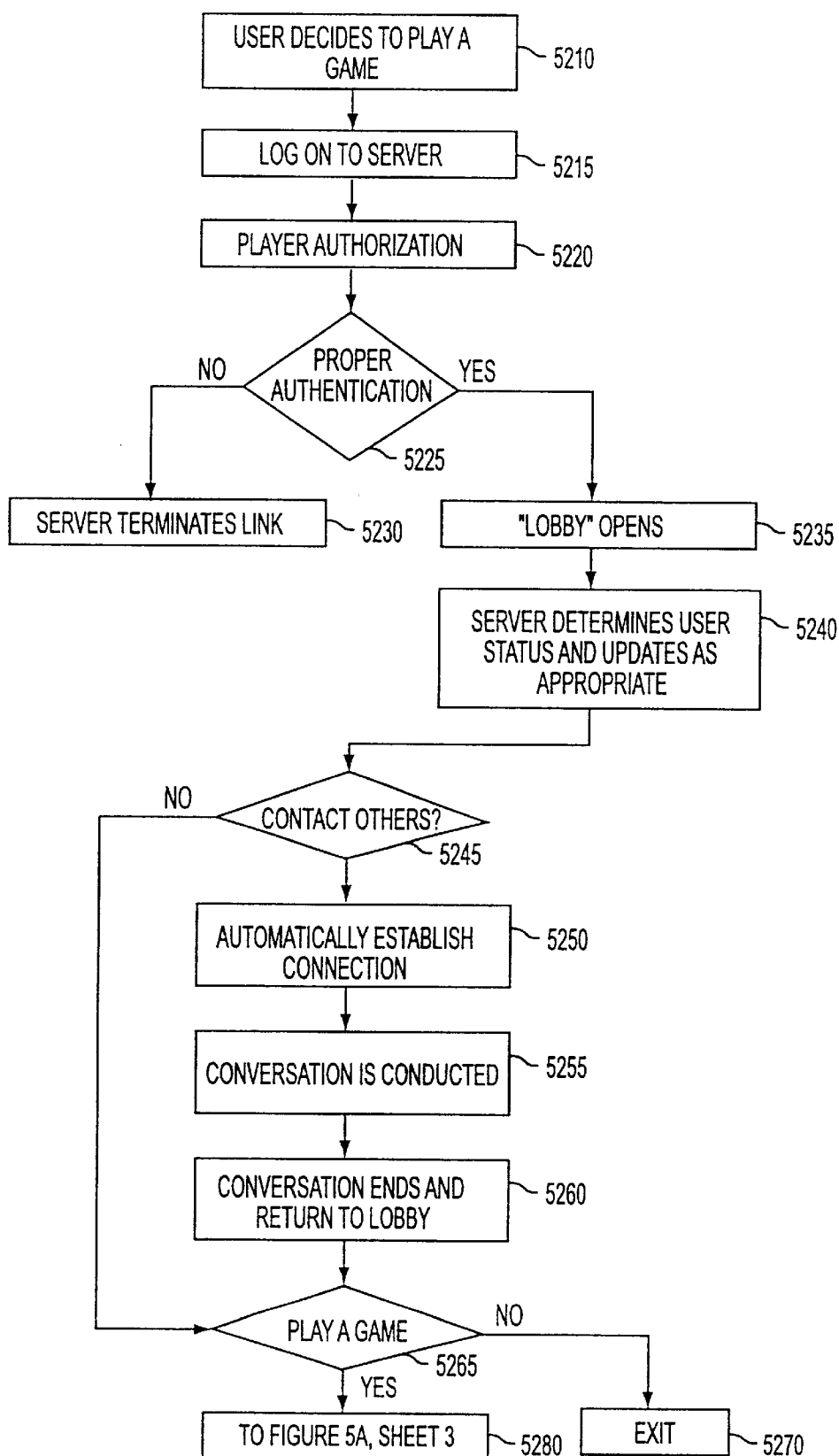


FIG. 8B

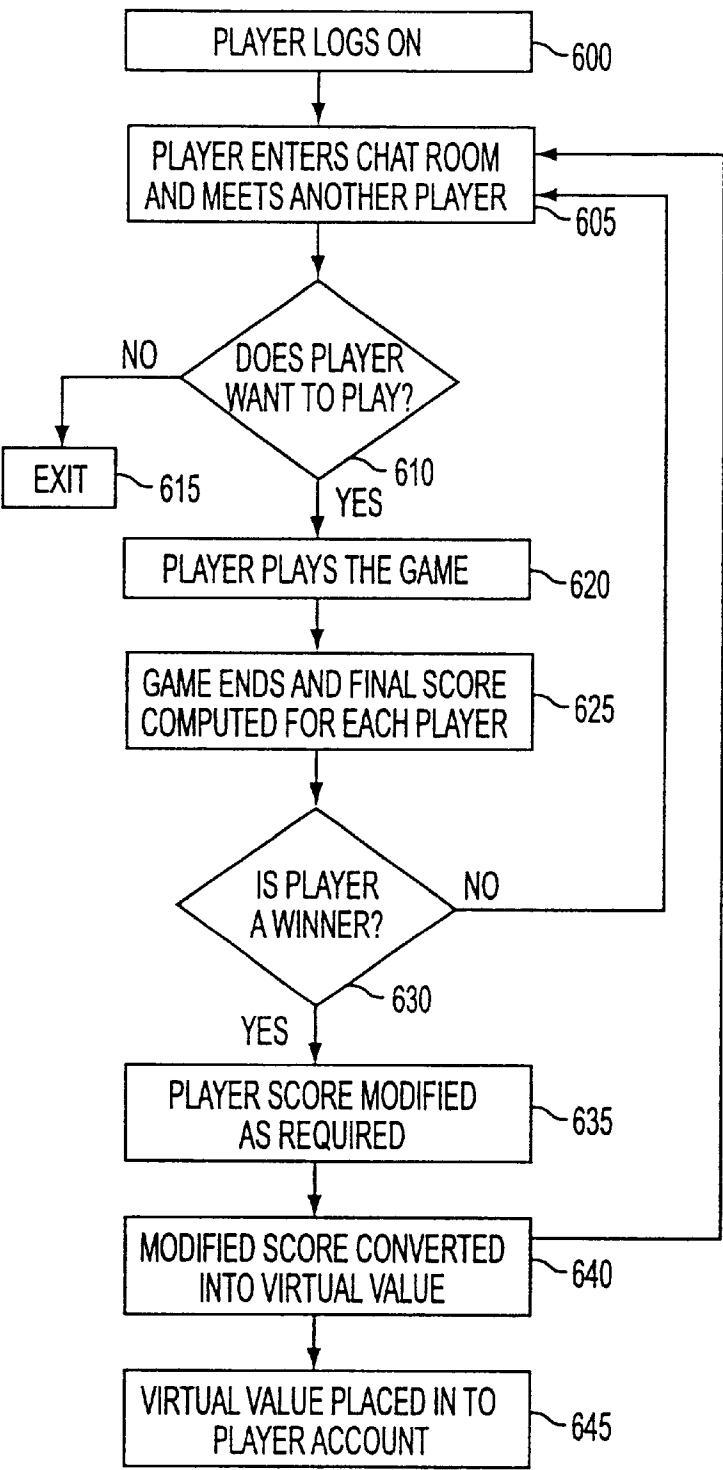


FIG. 9

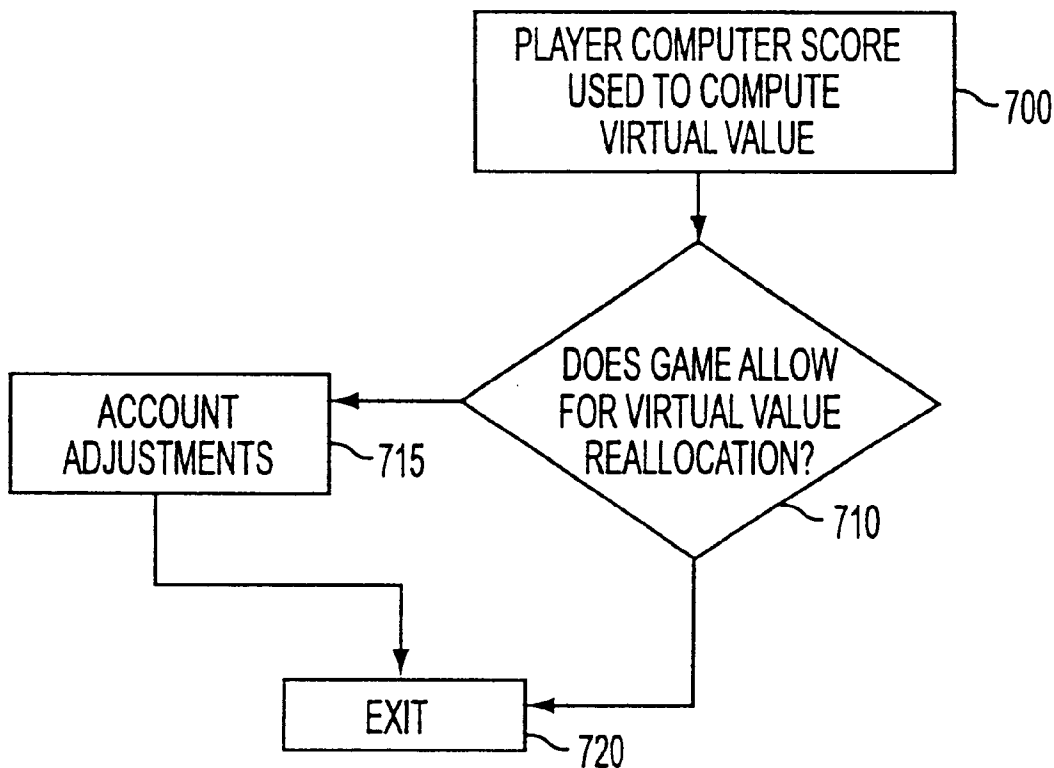


FIG. 10

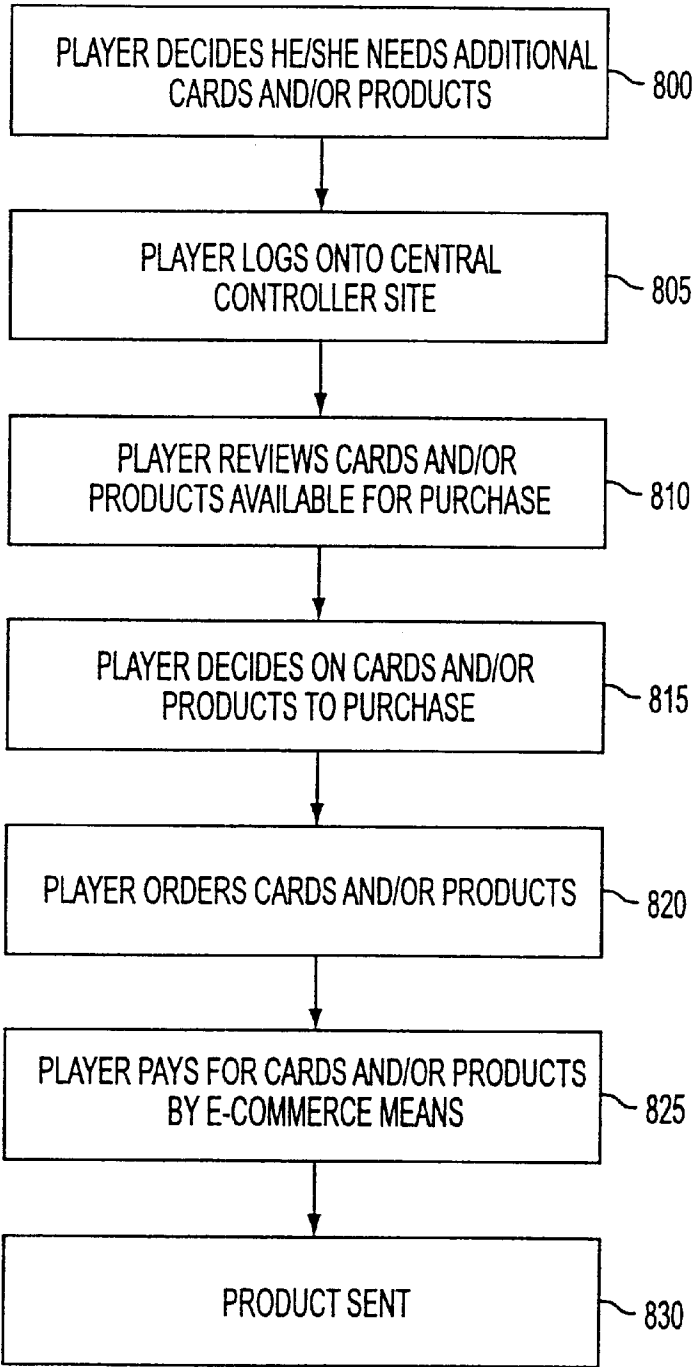


FIG. 11

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SYSTEM FOR CREATING A COMMUNITY FOR USERS WITH COMMON INTERESTS TO INTERACT IN

This application is a divisional application of application Ser. No. 09/513,844, still pending filed Feb. 25, 2000 which is a Continuation-in-Part of application Ser. No. 09/264,988 still pending filed Sep. 15, 1998, the entire content of which is hereby incorporated by reference.

FIELD OF THE INVENTION

This invention relates generally to software and information distribution and control. More particularly, this invention relates to the use of various communications protocols in order to distribute and enable community applications and information through a public or private network to enable users to interact and communicate with like-minded communities.

BACKGROUND OF THE INVENTION

The recent explosion of the Internet is due to many factors. One primary factor is the availability of practically unlimited information. Users can access data about companies, news events, sports, organizations and almost anything else under the sun. Another benefit of the Internet is its inherent ability to permit communication among users. Various standard protocols allow for information and resource exchange through email, chat rooms, as well as Usenet and other bulletin boards. A third major reason for the Internet's growth is the large number of free or low cost software applications which can be accessed through an Internet connection. There is a vast amount of software available on Internet servers which can be downloaded to the user's local computer and executed later. In addition, through on-line stores and other electronic commerce applications, it is possible for Internet users to purchase software and pay for it without ever placing a call or otherwise communicating with the software vendor.

In most cases, including interaction through the Internet, it is generally required that each user have an executable copy of a client software program locally at his or her computer. This may be accomplished by downloading the conventional computer executable code from a server prior to interaction. Additionally, it is possible to download code, such as Java code, through a user's browser application. Once each user has a local copy of the software, there are various methods through which users can "meet" other users and interact.

Users can enter public or private chat rooms where users with similar interests may be located. For example, in the context of a gaming environment, once all specific users are identified, interaction may be commenced via a game server which controls the interaction of play between and among the users. The server communicates with each of the player's local computers through an Internet connection. It is the server's responsibility to, for example, ensure that rules are complied with and that actions and reactions initiated by one player are communicated to other players. In the context of a community chat room, such as, for example, a chat room devoted to sailing, the server may be responsible for enabling users to communicate. News groups may allow a user to view and interact with postings governed by the server. In the context of a photo album application, a server may govern posting and viewing of applicable pictures.

While interaction which is established and implemented in the above described manner is generally acceptable, there

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are various drawbacks. For example, prior to establishing service, a user must locate the desired application on-line or, alternatively, purchase it in the store. Once the application has been downloaded or purchased, the user must manually complete the often detailed, frustrating and time consuming process of installing the application on the user's local computer. Following this, if the user wishes to initiate network (i.e. Internet) interaction, he or she must establish an Internet connection. Then the user must locate a suitable interaction user. In order to do this, the user is typically required to install a browser, find and "surf" to a web site which allows the user to locate other suitable users and then follow the steps on that site to find those users. These steps may include installing additional software plugins or applets, entering a chat room, and waiting for one or more suitable users to enter the same room. Alternatively, users may locate each other through pre-arranged bulletin boards or through email exchanges. Once the users have been located, various methods exist for establishing a connection between all users through a central or distributed game or communications server. Unfortunately, users with varying interests often have a difficult time locating each other. Additionally, many steps and a significant amount of time are required prior to commencing the actual interaction.

Creating communities of people with similar interests may also suffer drawbacks and difficulties. It may be time consuming and difficult to create a community of interest for users that permits interaction. Communities of interest may be difficult to create, especially for neophyte computer users with little experience in the field. If separate software, applets, or plugins are needed to access the community, it may be difficult to convince prospective community members to find a copy of or go to the website location for downloading the necessary software, download the software, install and configure it, and use the software to communicate with the community. Additionally, it may be difficult to publicize the existence of such a community to others.

Finding such a community may require familiarity with a computer and the Internet. Individual creators of applications or interactive communities may lack the resources to publicize these items.

Further, current interaction on the Internet may suffer from the drawback of technical complexity for users to operate. Communication and interaction may require knowledge of the location of bulletin boards or chat rooms, as well as knowledge to install and use communication applications. The technical complexities and lack of knowledge may create a significant barrier for adoption by new users.

In addition to user interaction, there are various other applications which inherently require communication among multiple individuals and which lend themselves well to establishing and maintaining that communication through the Internet or another flexible communications network. For example, commerce conducted over the Internet (sometimes known as "Electronic Commerce" or "E-commerce"), requires a user to locate an appropriate "on-line store" and then, within that store, locate an appropriate product prior to purchasing it. Searching the entire Internet for a store and then searching within that store can be a daunting task for the neophyte or even an experienced Internet user who has not previously purchased a product through an "on-line store". Further, finding a store that the user trusts may be difficult, as a user often searches the internet on their own, without a referral.

Nor do interactive applications allow administrators to publish or subscribe to information and select customer

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functionality applications, particularly information located on another application. Current methods of “cutting and posting” information from one area to another often require editing and reformatting the information. These efforts may be time consuming and deter users from publishing such information.

SUMMARY OF THE INVENTION

It is therefore an object of the invention to overcome the drawbacks of the prior art.

It is a further object of the invention to provide a method and system which simplifies processes for interaction among individuals and/or entities which occur through a communications network.

It is a still further object of the invention to provide a system and method for multi-user interaction and communication through a network which is directed to a specific transaction, interaction and/or interest.

It is another object of the invention to provide a system and method which enables creation and distribution of application objects which direct a user to specific information.

It is another object of the invention to provide a system and methodology for invoking an invitation application to simplify the creation of and allow the widespread and rapid distribution of an electronic connection between a plurality of users through an on-line community associated with a user interest.

These and other objects are achieved through the present invention which provides a system and method for information and application distribution and delivery. The system described herein may be referred to as an Information and Application Distribution System (IADS) and may be preferably embodied as a communication network which may be used for a variety of purposes. In one embodiment, the IADS is employed to distribute, initiate and allow user interaction and communication within communities of users with similar interests. An IADS of the present invention may employ a communication application to distribute and initiate invitation applications having an executable component and a message component. The IADS of the present invention may include access to one or more customized communities which are designed to allow users to interact within a community with various community applications. The delivery methodology of the present invention may circumvent many of the drawbacks encountered in matching or users of applications through prior art techniques.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a block diagram illustrative of the Information and Application Distribution System (IADS) of the present invention.

FIG. 2 is a flowchart illustrating steps in creating a community according to an embodiment of the invention.

FIG. 3 is a flowchart illustrating steps in distributing and initiating a community according to an embodiment of the invention.

FIG. 4 is a graphic user interface for a community according to an embodiment of the invention.

FIG. 5 is a schematic illustration of accessing subscription objects according to an embodiment of the invention.

FIG. 6 is a block diagram of an IADS according to a specific embodiment of the invention.

FIG. 7 is a flowchart illustrating the major steps in distributing, initiating and controlling a multiple player

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computer game application in a particular embodiment of the present invention;

FIGS. 8A1–8A4 and 8B are flowcharts illustrating the process of game distribution via electronic mail and subsequent game play in a preferred embodiment of the present invention.

FIG. 9 is a flowchart illustrating the detailed process of game play in a preferred embodiment of the invention.

FIG. 10 is a flowchart illustrating the detailed process of virtual value ticket account control according to a preferred embodiment of the invention.

FIG. 11 is a flowchart illustrating the detailed process involved in a product purchase using the IADS in a preferred embodiment of the invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The present invention is described in relation to distribution of an invitation application and a client application via a network and an email connection. Nonetheless, the characteristics and parameters pertaining to this distribution are equally applicable to other types of distributions.

For purposes of explaining the present invention, a specific embodiment will be described. This embodiment is exemplary only, and is not intended to limit the scope of the invention. A creator accesses a central controller over a network to create a community using a community creating module. In this example, the title of the community is “The William Henry Harrison Historical Preservation Society.” The community creating module permits the creator to create a community, and designate applications and content presented in the community by a user interface. The applications in the present example include a chat application object for users to interact with each other in chat format, a schedule application object for scheduling appointments for the events, a pledge application object for pledging a donation, a photo album application object for viewing photos related to William Henry Harrison, and other application objects. Content in the present example includes information about upcoming fund raising events and meetings for the society, information about current funds collected, biographical information about William Henry Harrison, and other information. Different applications may provide different levels of interaction between a user, other users, and the central controller module.

Upon creating the community, the creator designates other users to access the community. The application accesses the creator’s locally stored communication address book, such as e-mail address book, or retrieves a centrally stored communication address book from the central controller, and presents the contents to the creator. The creator selects the names and e-mail addresses of the individuals to be invited to access the community. The central controller sends a transmission, such as an e-mail, to the invited users based on the information provided by the creator. The transmission includes a message component and an executable component. The message component describes the community, invites the user to join the community, and provides instructions. In the present example, the message component greets the user, informs the user that the community is named “The William Henry Harrison Historical Preservation Society,” describes the community, and invites the user to join.

Upon receipt of the transmission, a user executes the executable component according to the instructions, such as in a known manner, e.g., double clicking on an appropriate

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icon in a Windows™ environment or other manner of executing the executable component. A login dialog screen is opened for the user. A user provides registration information (e.g. full name, address, personal information, etc.) and forwards the information to the central controller. The login display screen provides the user with a user-id, and prompts the user to supply a password. At this point the program may or may not download additional content objects, application objects, and client software components to allow the user to interface with the Henry Harrison Historical Preservation Society from outside the browser environment.

Using the user interface, the user can interact with the community through the central controller, other users, or both, at appropriate times. Upon entering a community, a user may access content objects, such as subscription objects, application objects, or other content, which form the community. A user automatically receives content objects that are updated. Interaction includes using the various application objects downloaded to the user, such as interacting with another user in the chat area. Where applicable, the central controller module coordinates use of an application object between a plurality of users.

FIG. 1 illustrates an IADS 100 according to an embodiment of the present invention. IADS 100 comprises multiple users 110 connected to Network 150 through multiple Connector Providers (CPs) 105. Network 150 may be any network that permits multiple users to connect and interact. According to an embodiment of the invention, Network 150 may be a dedicated line to connect users, the Internet, an intranet, or other type of network. CP 105 may be a provider that connects a user to a network. According to an embodiment of the invention, CP 105, may be an Internet service provider, a dial-up access or other manner of connecting to a network. In actual practice there may be significantly more users connected to IADS 100 than shown. This would mean that there would be additional users which are connected through the same CPs shown or through other CPs. Nevertheless, for purposes of illustration, the discussion will presume four users 110 connected to Network 150 through two CPs 105.

According to an embodiment of the invention, clients 110 may be users with any computing device capable of accessing Network 150 through CP 105. Alternatively, some or all of users 110 may access Network 150 through a direct connection. FIG. 1 shows two computers 110a and 110b each having a connection to Network 150 through an CP 105a and 105b. Computers 110a and 110b may be personal computers such as those located in a users home, or may be other devices which allow a user to access and interact with others on Network 150. According to an embodiment of the invention, both computers 110 may be connected to Network 150 through the same CP 105. Central controller module 115 may also have a connection to Network 150 as described above. Central controller module 115 may communicate with one or more data storage modules 160, the latter being discussed in more detail below.

According to an embodiment of the invention, each computer 110 may be configured as a typical home based computer. Other configurations may also be used. Each computer 110 may contain a communication application module 155, a processor module 160 and a memory module 170. Communication application modules 155a and 155b need not be the same specific software so long as communication between them is according to standard protocols so that messages sent and received can be recognized. Communication application module 155 may comprise an e-mail application such as Microsoft Beyond Mail™, Netscape

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Mail™, Eudora Pro™, or the like, and must also comprise an application which can establish a persistent connection to network 150. Computer 110 may have at least one input device 120 for controlling the computer 110. Input device 120 may be a keyboard, joystick, touchpad, scanner or any similar device or combination of devices. Each of computers 110 may also include a display module 140, such as a CRT display or other device. Additionally, clients 110 may contain client application module 125, where client applications comprise content, subscription objects, user interface, application objects, and other content, which will be described in greater detail below.

IADS 100 further includes central controller module 115. Central controller module 115 may maintain a connection to Network 150. Preferably, a connection may be a high speed, large bandwidth connection, such as a T1 or T3 line, although other connections may also be employed. Central controller module 115 may function to permit clients 110 to interact with each other in connection with various applications, messaging services and other services which may be provided through IADS 100.

Central controller module 115 may preferably comprise either a single server computer or multiple server computers configured to appear to clients 110 as a single resource. Central controller module 115 may communicate with a number of data storage modules 160. Particular storage modules 160 are described in further detail below. Various databases may be available in a data storage module 160 as necessary depending upon the specific applications and services made available through IADS 100. In practice, data in a storage modules 160 may be merged into a single database or into groups of databases as determined by a system administrator. According to an embodiment of the invention, data storage modules 160 may be located on one or more data storage devices, where the data storage devices are combined or separate from central controller module 115. Physically, the databases may or may not be co-located on the same storage device.

Communication module 180 may enable central controller module 115 to communicate with others. According to an embodiment of the invention, communication module 180 may comprise an email transfer application such as Sendmail, Postfix, or Q-Mail or the like. Communication module 180 may further enable central controller module 115 to interact with users via user application objects, such as instant messaging. Further, communications module 180 may enable central controller module 115 to interact with an Internet browser, such as Netscape Navigator™, Microsoft Internet Explorer™, or the like.

As will be discussed in more detail below, data storage module 160 may include files associated with various applications which are accessed by users stationed at clients 110. Applications may include computer games, shopping cart applications for the purchase of goods and/or services, work group applications such as word processing, database, accounting, inventory and graphic programs, and other application objects. Many of which will be described in greater detail below. Other applications may also be stored. The data storage module 160 may also include an email database module, which may contain listings of email addresses that are located, indexed and stored as described below. As will be discussed in more detail below, according to an embodiment of the invention, various communities, clients, subscription objects, executable components and other items may be stored in data storage module 160. Data storage module 160 may include an information database module which may contain a variety of different types of

information. Central controller module 115 may record various user information in data storage module 160, such as what communities a user is a member is subscribed to, what invitations a user has received, what invitations a user has accepted, and other user information. Central controller module 115 may record community information in data storage module 160, such as community memberships, statistics about community popularity and other community information. Other information may also be stored.

Central controller module may be connected to link application module 130, community creating module 165, and invitation module 175. According to an embodiment of the invention, link application module 130 may assist a user in setting links within a community. The functions of link application module 130 will be described below in greater detail. According to an embodiment of the invention, community creating module 165 may assist a user in creating a community. The functions of community creating module 165 will be described below in greater detail. According to an embodiment of the invention, invitation module 175 may assist a user in inviting other users to join a community. The functions of invitation module 175 will be described below in greater detail.

Creating a Community

FIG. 2 is a flow-chart which illustrates creating a community according to an embodiment of the invention. A creating user, or creator, starts creating a community at step 200. At step 202, a creator provides community identification information, and community identification information is screened to determine if the information is valid at step 204. If community identification information is not valid, a creator is informed at step 206, and is returned to step 202. If community identification information is valid, a creator sets a category at step 208. At step 210, a creator determines the look and feel of a community, and decides whether to advanced look and feel at step 212. If yes, a creator sets artwork and fonts at step 214, and sets text for the announcements screen at step 216. If a creator decides not to select advanced look and feel, the creator sets text for an announcements screen at step 216. At step 218, a creator determines whether to have a link in an announcements screen. If yes, a creator uses a link application module to set text for an announcements screen at step 220, and may set a link destination at step 222. Upon setting a link destination, or if a creator elects not to set a link, a creator sets up a mailing list at step 224. At step 226, a user sets a privacy level for community. A user invites others to a community at step 228, and launches a community at step 230. The method of FIG. 2 will now be described in more detail.

A creator accesses community creating module 165 through central controller module 115 at step 200. According to an embodiment of the invention, community creating module 165 may provide the framework through which central controller module 115 interacts with a user to create a community, and related applications and functions. According to another embodiment of the invention, community creation may comprise a web-based creation. Other configurations may also be used.

At step 202, a creator provides community identification information to a central controller module 115. Community identification information may comprise a community name, description, search tags, keywords, and topline key. By way of example, a creator may name a community and provide a brief description, such as naming the community the "Omaha Sailing Club" and may describe the community as

a group of sailors in the greater Omaha, Nebr. area who have an interest in sailing and following sailing events. A creator may further designate appropriate keyword(s), metatag(s), search tag(s), and /or other classifications for a community, such as "Omahasailing" as a keyword, and "Omaha," "sailing," "Nebraska," "boats," "yachts," and "water" as search tags. Community identification information may further comprise information about the creator, such as name, address, personal information, and other creator information. Community identification information may also comprise computer information, such as an electronic identifier (e.g., cookie, computer identification number. etc.) and other information about the computer. Other community identification information may also be requested.

According to an embodiment of the invention, a creator may input the requested information through input device 120. Information may be automatically provided to central controller module 115 through the connection of user 110 with central controller module 115, such as the computer identifier number. Other methods for providing information to central controller module 115 may also be used, such as inputting information into a telephone keypad or personal digital assistant.

At step 204, central controller screens community identification information to determine if it is valid. If community identification information is already in use, such as a community name already in use, a creator may be informed of this event at step 206, and may be returned to step 202 to provide different community identification information. According to an embodiment of the invention, a creator may be required to acknowledge the use of the community identification information by another, such as by requiring the creator to click on a dialog box to continue to step 202.

If community information is valid, a creator may designate a community category at step 208. The category may be within a hierarchy of categories, where the creator is presented with various categories and subcategories with which to associate the community. By way of example, a hierarchy may contain various categories, such as "Arts & Humanities," "Education," "Government," "Recreation & Sports," or "Science," and subcategories. For the category "Recreation & Sports," for example, various subcategories may include "College Football," "Professional Basketball," and "World Cup Soccer." Under the category of "Education," for example, various subcategories may include "Engineering," "High School," and "Elementary Education." Subcategories may be further divided into other subcategories. Other categories and subcategories may be used to identify a community. According to an embodiment of the invention, a creator may categorize a community under more than one category or subcategory. By way of example, a community entitled "Omaha Sailing Club" may be categorized under a "Recreation & Sports" category. Other methods of categorization may also be used.

Additionally at step 208, a creator may designate community fields. Community fields may comprise a category or categories of interest, language, location, age group, and meta-tags of interest associated with the community, and may overlap with other community identification information. According to an embodiment of the invention, community fields may designate English as the language of the community, sailing as the category of interest, and Omaha, Nebr. as the location for the community. Community fields will be described in more detail below.

At step 210, a configuration editor is presented to a creator. A configuration editor may allow a user to build a

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community, designate content and application objects, subscribe to subscription objects, and add other information associated with the community.

According to an embodiment of the invention, information, applications, functions and other aspects of a community may be generally considered content objects, where content objects may comprise portions of a community which a user may access. Content objects may further comprise application objects, subscription objects, or other content of a community. Other types of content objects may also be used. Application objects and subscription objects will be described in greater detail below.

According to an embodiment of the invention, a configuration editor may present various standard community templates and application objects (or "functions") to build a community, and various options or customizations for a creator to create a community. According to an embodiment of the invention, standard templates may comprise templates for arranging functions and content. Standard application objects may comprise a chat application object, a shopping cart application object, an instant message application object, a navigation application object, a search application object, an address application object, a news group application object, or other application objects. Standard application objects may be available to all users. A chat application object may comprise a scrolling chat window, where users may interact by typing messages to each other. According to another embodiment of the invention, limited standard application objects may be available to certain user. Limited standard application objects may comprise a creation application object, an exit application object, an invitation application object, or other application objects. An exit application may allow a user to exit a community. An invitation application object may allow a user to invite others, such as in the manner set forth in FIG. 3.

According to an embodiment of the invention, a community may have an electronic store associated with the community. A creator may "stock" the electronic store with items of interest to users of the community, such as subscribing to vendor subscription objects. A shopping cart application object may permit a user to select items from the electronic store to purchase either immediately or at a later time. Other application objects may also be used.

Options may include modifying standard applications, designating optional applications, creating unique applications, creating specific content, organizing the presentation of a community user interface, designating who can access the community, and designating who is initially sent the community, including the message component and executable component. Other options may also be present by a configuration editor. According to an embodiment of the invention, community creating module 165 may enable a creator to create a desired unique application. According to an embodiment of the invention, a unique application created by a creator may be saved on community creating module 165 and may be later presented to another creator as an optional application. A unique application may be altered before being presented as an optional application or may be presented as created. According to another embodiment of the invention, application objects may be created independently by a user, or by a third party. Other methods for creating a unique application may also be used. Various functions will be described in greater detail below.

According to an embodiment of the invention, a creator may subscribe to available subscription objects. Subscription objects may be various objects, such as chat content, a

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product to purchase, a photograph file, or other item, which has been published by another user. Publishing a subscription object enables others to subscribe to the subscription object. The subscription object may be accessed through a community and an application object. By way of example, a transcript of a chat session in a community related to politics may be published by an administrator of a community. A creator (or administrator) of a second community related to politics may subscribe to the subscription object corresponding to the chat session, thereby enabling the users of second community to access the contents of the chat session. Other manners for subscribing may also be used.

At step 212, a creator determines whether to modify a community to achieve an advanced look and feel. If a creator desires an advanced look and feel, a creator may be presented with various options to modify a community look and feel at step 214. Options may include modifying various fonts, sizes and colors of various content (e.g., title, text, headers, etc.), modifying backgrounds, such as different colors or designs, designating attributes of tabs and buttons, and other selections which determine the "look and feel" of the community. According to an embodiment of the invention, a creator may be presented with pull down menus to select various options. A creator may also import options, such as artwork, pictures, video, audio, or other files to modify a community. By way of example, a creator of a community entitled "Omaha Sailing Club" may be presented with two pull down menus providing options for the title. A creator may select "Book Antiqua" as the font, and 14 point as the size. Further, a creator may upload a picture of a sail boat to serve as a background for the community and may upload an audio file of sea gulls and waves to be heard when a user first accesses the community. Other modifications may also be made.

Once a creator has set the advanced "look and feel" or if a creator elects not to set the advanced "look and feel," a creator may set text for an announcements screen at step 216. According to an embodiment of the invention, a community may have an announcements screen which provides an introduction to the community, and may be accessed by a user selecting the announcements tab. A creator may select what text will be displayed on the announcements screen, as well as the text content on the announcements screen associated with an announcements tab. Text may include greetings, community news, announcements, or other information associated with the community. According to an embodiment of the invention, an announcements screen may be the first display a user views when entering a community. By way of example, the creator of the community entitled "Omaha Sailing Club" may designate that text on the announcements screen introduce a user to the community and provide a brief explanation about various functions and content of the community. Other manners of setting text on an announcements screen may also be used.

At step 218, a creator determines whether to place a link to another community in an announcements screen. If a creator elects to place one or more links in the announcements screen, a creator may be presented with link application module 130, and may set text for a link or links at step 220. Setting text for a link may comprise a creator entering text to describe the link. At step 222, the creator may set the link destination. By way of example, another community may be entitled "America's Cup™ Watch" and may focus on various milestones and events leading up to and occurring in the America's Cup™ sailing races. A creator may provide a link in the announcements screen to this community, and set text for the link, such as "America's Cup™ Schedule of

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Events.” A user may then activate the link and be taken to the “America’s Cup™ Watch” community. Other manners of providing links may also be used. For example, a community administrator may wish to originate a link to another community in another screen, such as the screen displaying the chat application object, instead of originating the link in the announcements screen. A community administrator may wish to place links directly to a subscription object within another community. A community administrator may determine that another community has a particularly active chat room that may be of interest. The administrator may create a link directly to that chat room, rather than the entrance of the community. Finally, an administrator may also wish to create links originating from or pointing towards World Wide Web pages, or may incorporate some or all of a World Wide Web page directly into the community application.

Once a creator has set links in the announcements screen, or elected not to set links, a creator may set up one or more mailing lists at step 224. According to an embodiment of the invention, a community may have one or more groups associated with the community. Groups may comprise officers, people within a certain geographic location, or other types of groups. Mailing lists may enable a user to send a message to certain users in a community. By way of example, the creator of the “Omaha Sailing Club” community may create a mailing list for club officers, a mailing list for members of different marinas, a mailing list for users with an interest in catamarans, and a mailing list for users with an interest in single hull sail boats. Other types of mailing lists may also be used.

At step 226, a creator designates the privacy level of a community. According to an embodiment of the invention, a privacy level may indicate what users may access the community. Various privacy levels may determine what users may access a community. Some privacy levels may require a specific invitation, such as from a designated user (e.g., administrator) or a member of the community. Other privacy levels may allow users to apply without an invitation, where a specified user approves the membership. Another level of privacy may allow any user to join. According to an embodiment of the invention, privacy levels may determine whether a community is listed within a hierarchy of communities, and whether the content of the communities are published. Communities with high privacy levels may not be listed within a hierarchy or a user interface, while communities with lower privacy levels may be listed. By way of example, the creator of the “Omaha Sailing Club” community may select a privacy level that allows any user to enter the community without an invitation, but requires a community administrator to approve the membership within the community. Other manners of determining privacy for a community may also be used.

When designating privacy levels, a creator may designate specific users to perform certain functions within a community. A creator may delegate functions to other users (or “administrators”) and/or may empower other users to perform functions. Such functions may include inviting individuals, stocking a community store, approving an individual to join a community, punishing users for inappropriate conduct in a community, monitoring functions to ensure compliance with community standards, publishing or subscribing to subscription objects, or other functions related to a community.

According to an example, a community titled “The XYZ Softball Team” may be created, where information about the

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XYZ Softball team, including a schedule of games, player statistics, and other information, is presented. A creator may determine that only members of the XYZ softball team should be able to access the community. A creator may provide to central controller module 115 a list of team members, along with appropriate information. Central controller module 115 may compare information provided by a user to the information provided by a creator, thereby governing access to the community.

According to an embodiment of the invention, a creator may designate certain users to allow others to access the community. According to the example of a community titled “The XYZ Softball Team,” there may be a coach and two assistant coaches for the team. The coach of the team may create the community and a designate that each team member may be able to access the community. Further, the creator may designate that the two assistant coaches may allow other users to access the community. According to an embodiment of the invention, users designated to allow other, non-designated users to access a community may receive a client application with a “tag” encoded within. The tag may indicate the chain of communications, e.g., how the client application was sent from one user to another. According to an embodiment of the invention, a user may not join a community unless that user received the client application from a user designated to allow other users to access the community. Thus, according to the example of the “The XYZ Softball Team” community, assistant managers may receive a client application with a tag. Any user who receives an invitation directly from one of the assistant managers may access the community. If the client application is not received directly from one of the assistant managers, a user may be prohibited from accessing the community. According to another embodiment of the invention, central controller module 115 may maintain records regarding what users may invite other users into a community. Members of the “XYZ Softball Team” community other than the coach or assistant managers would not be able to invite other users to become community members. Other methodologies for designating who can access a community may also be used.

According to an embodiment of the invention, a creator may determine whether users can interact within a community in total anonymity, in various stages of anonymity, or without any anonymity. A user may provide certain information to allow for identification. A user may enter a user name for a community, and may create a profile, where the profile comprises information about the user that may be accessed by other users. Users may elect not to provide certain information in a profile. By way of example, a creator may indicate that all members of a community must disclose the user’s actual name and address in a profile. Other manners of determining user privacy may also be used.

At step 228, a creator may invite people to join a community. According to an embodiment of the invention, a creator may generate an invitation message to other users, inviting them to join the community. A creator may further provide a communications address, such as an e-mail address, to allow an invitation and a executable application to launch the community to be sent to one or more users. According to an embodiment of the invention, the community client application operating on the creator’s computer may access the creator’s locally stored communications address book (e.g., e-mail address book), or the central controller module 115 may access the creator’s centrally stored address book. A list of communications addresses

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may be presented to the creator, thereby enabling the creator to select users to invite without being required to input each communications address for each user. Other manners of inviting users may also be used. At step 230, a creator may launch a community. Other manners of creating communities may also be used.

Inviting Other Users

FIG. 3 is a flow-chart which illustrates inviting other users to participate in and/or join a community according to an embodiment of the invention. At step 250, a user activates an invite function. At step 252, a user's communication address book is accessed and a list of communication addresses is presented. A user selects communication addresses and creates a personal invitation at step 254, and sends communication addresses and personal invitations to central controller module 115 at step 256. At step 257, the contents and configuration of an invitation application are determined, and at step 258, central controller module 115 creates an invitation application. At step 260, central controller module 115 sends an invitation application to the communication addresses. An invited user receives the invitation application and launches it at step 262. The executable component prompts an invited user to provide acceptance information at step 264. At step 266, the acceptance information is sent to central controller module 115. Central controller module 115 approves the acceptance and transmits a community client application at step 268, and launches the community client application at step 270. The method of FIG. 3 will now be described in more detail.

A user may access invitation application module 175 through central controller module 115 at step 250. According to an embodiment of the invention, invitation application module 175 may provide the framework through which central controller module 115 interacts with a user to invite other users to join and/or interact with a community, and related applications and functions. According to an embodiment of the invention, as described in FIG. 4, a user may access invitation application module 175 by activating invite function button 3035 located on graphic user interface 300. An example of an embodiment of graphic user interface 300 is described in greater detail below. Other configurations may also be used.

At step 252, a user's communication address book (e.g., e-mail address book, IRC chat address book, etc.) is accessed, such as through a client application using client 110. A client application may present a list of communication addresses to user, by retrieving communications addresses located within a user's communication address book. A user may select communication addresses from the list presented, thereby enabling the user to select other users to invite without being required to input a communications address for each user.

According to an embodiment of the invention, a user may desire to invite an individual who is not in a user's communication address book. A client application may present a user with the option to manually input a communication address such as, for example only, presenting a dialog box for a user to enter an e-mail address. Other manners of selecting communication addresses may also be used.

A user may generate a personal invitation as communication addresses are selected. According to an embodiment of the invention, a user may generate a different personal message for each communication address. An individualized personal message may address the invited user by name, such as referencing an invited user by name, describing

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aspects of the community of specific interest to an invited user, and other personalized comments. According to an embodiment of the invention, a user may generate one general personalized message to be sent to all selected communication addresses, where the one general personalized message is sent to all invited users, but is created by the user inviting the others. Such a general message may describe various aspects of a community, including general portions of interest to the invited users. Other manners of generating personal invitations may also be used.

At step 256, a user sends one or more selected communication addresses and personal invitations to central controller module 115 through communication address module 135. Communication addresses and personal invitations may be sent to central controller through any known manner. By way of example only, communication addresses and personal invitation may be thorough a communications application, such as an e-mail transmission, an "instant message" transmission, or other manner of transmission. Other manners of sending may also be used.

At step 257 central controller module 115 may determine what an invited user needs to join a community. Central controller module 115 may determine what an invited user needs based if the invited user has previously registered with another community. Central controller module 115 may check records, such as records located on data storage modules 160.

At step 258, central controller module 115 creates an invitation application. According to an embodiment of the invention, message component may comprise a personal invitation and an instruction invitation. Central controller module 115 may create an instruction invitation to combine with a personal invitation provided by a user. An instruction invitation may provide instructions to an invited user regarding how to execute an executable component, how to interact within a community, what behavior is acceptable within the community, where to find help to interact with the community, and other instructions that may be of use to an invited user. Central controller module 115 may combine a personal invitation, such as a personal invitation provided by a user, with an instruction invitation to form a message component. Other manners of generating a message component may also be used.

According to an embodiment of the invention, if an invited user has not registered previously, central controller module 115 may combine an executable component with a message component. An executable component may be resident on central controller module 115, such as, for example, a self-extractable zip archive. An executable component may provide assistance in registering a user to join a community and for downloading appropriate information needed to access a community. Executable components will be described in more detail below. An executable component may be combined directly with a message component, or may be modified for an invited user before being combined with a message component. According to an embodiment of the invention, central controller module 115 may generate a new executable component to combine with each message component, such as if a unique message component is being sent. An executable component may be personalized for an invited user, such as personalized based on the community to be invited to, personal preferences, or other characteristics. Other manners for using executable components and creating an invitation application may also be used.

Further, an executable component may contain all applications necessary to view and interact in a community.

These applications will be described in greater detail below. An executable component may assist an invited user in accepting and registering for a community and obtaining the proper information and/or files to access and interact with a community. When an executable component is launched, it may read a user's identification number, such as from the name of the zip archive, and may connect to the server to begin setup and download of a client application for a community. A user ID may be used to retrieve a user's communication address off of central controller module 115, as well as retrieve other user-specific information, such as which community a user has been invited into.

According to an embodiment of the invention, an invited user may already be registered with another community and have previously received an executable component. Central controller module 115 may generate a message component, as set forth above, for the new community to which the invited users is to be invited. Central controller module 115 may also generate an acceptance component to combine with a message component to form an invitation application. An acceptance component may prompt an invited user to accept an invitation and provide further information. By way of example only, an acceptance component may prompt a user to accept an invitation, provide a user identification for the community and provide a password for the community. Other manners of providing acceptance components may also be used.

At step 260, central controller module 115 sends an invitation application to an invited user. According to an embodiment of the invention, an invitation application comprises a personal invitation, an instruction invitation, and an executable component. According to another embodiment of the invention, an invitation application comprises a message component and an acceptance component. An invitation application may be sent to an invited user via a transmission using an appropriate communication address, such as an e-mail address. Other manners of transmitting an invitation application may also be used.

At step 262, an invited user receives an invitation application and launches an executable component of the invitation application. According to an embodiment of the invention, an invited user may receive an invitation application and may access a message component of the invitation application. A user may launch an executable component according to known launching methods (e.g., double clicking on an executable icon, etc.). According to an embodiment of the invention, an invited user may launch an acceptance component of the invitation application. Other manners for receiving and launching an executable component may also be used.

At step 264, executable component prompts a user to provide acceptance information. An executable component may present a user with a login dialog on-screen. According to an embodiment of the invention, a dialog design may be simple with a minimum of fields to avoid confusing an invited user. A user may be given the option to change user name and default email (for example, the address that the executable component was sent). A user may be prompted to provide other user information, as well as enter a password and confirm it. According to an embodiment of the invention, an acceptance component may prompt a user to provide appropriate acceptance information. According to an embodiment of the invention, a user may press a button to cancel an install if the user is not inclined to download a client application for a community. Central controller module 115 may record invited users who declined an invitation to a community, such as recording in data storage module

160. Records may include the name and e-mail address of an invited user and who initiated the invitation.

According to an embodiment of the invention, a user may designate user fields while registering. User fields may comprise a user's selection of language, a category or categories of interest, age group, location, and other items to designate interests of the user. According to an embodiment of the invention, user fields may correspond to community fields. Community fields will be discussed in greater detail below. Other information may also be recorded.

An executable component forwards registration information to central controller module 115 at step 266. According to an embodiment of the invention, registration information may be sent via a communication application, such as e-mail. According to an embodiment of the invention, an acceptance component forwards acceptance information to central controller module 115. Other manners for transmitting registration information may also be used.

At step 268, central controller module 115 approves acceptance and transmits a client application to the invited user. According to an embodiment of the invention, acceptance may comprise recording that an invited user accepted an invitation to join a community. An executable component may assist central controller module 115 in downloading a client application upon confirmation that installation should proceed. According to an embodiment of the invention, a client application may be downloaded while an invited user watches a tutorial. When the download is complete, a user may have a link that has been associated on the user's computer. At step 270, a user may launch a community, such as activating a link to launch a client application for a community. The link may designate information necessary for the invited client to connect to central controller module 115 and initiate the user into the community. Other manners of launching applications may also be used, for example the community may launch automatically after the central controller module completes the download. A user may enter a community and access content objects, such as subscription objects, application objects, and other content, which form the community. Further, upon entering the community, a user may automatically receive updated content objects as appropriate.

When a client application is launched to access a community, a user may be presented with a login screen. The user may access a community by entering the correct password a community. Once the password is verified, a graphic user interface 3000, as illustrated in FIG. 3, is displayed. Graphic user interface 3000 may contain a tab window 3005 with tab interface 3010. Tab interface 3010 may comprise a plurality of tabs, such as announcements, chat, and communications. A user may select a tab from tab interface 3010 to access a particular function. A community title 3015 may be displayed on graphic user interface 3000.

Tool Bar 3020 may allow a user to browse through the hierarchical structure that organizes various communities. Graphic user interface 3000 may display the current location within a hierarchy, as well as the subcategories below the current location in the hierarchy. Graphic user interface 3000 may also display links to content and communities that are available at other categories and subcategories. Links may enable a user to jump to another community, category, or subcategory.

Community Functions

Graphic user interface 3000 may present a user with community related functions including community

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information, chat, instant messaging, discussion groups, classifieds, and mailing lists. The chat function allows users to interactively participate in a text based discussion involving other members of the community. Instant messaging allows a user to send a text message directly to a selected user. Discussion groups allow community members to post and respond to messages related to topics of interest to the community. Classifieds allow members of the community to post advertisements for products and services they wish to purchase or sell, and that are of interest to the community. Mailing lists provide a convenient mechanism by which community members may send email that reaches other members of the community.

Another set of functions are related to finding, creating and building communities. A Create Function 3025 may allow a user to create a new community, as set forth above in FIG. 2. An Invite Function 3035 may allow a user to invite others to join a community. A Navigation Function 3030 may allow a user to browse through a hierarchical representation of communities and content to find communities they may wish to join or community content they want to view. A Pal Function 3040 may allow a user to maintain a "Pals" list of people whom they wish to have available for communication at all times. A Search Function 3045 may enable a user to search for communities, vendors, products or users. An Exit Function 3055 may enable a user to exit a community. A Community Store 3050 Function may enable a user to purchase items. Various functions will now be described in greater detail below.

Pals

According to an embodiment of the invention, a user may Select Pal Function 3040, which may comprise a scrollable window containing a list of users who have been selected as the user's pals. A user who invites another user into a community may be added to the list by default. Other users can be added to the pals list by highlighting a user within a chat room users list and adding to a pals list button.

Invite

A user may select Invite Function 3035. Invite Function 3035 may allow a user to invite people from an address book and pals list into a community. As illustrated above in FIG. 3, the client application reads a communication address book and pals list and puts the names and addresses into a list. A user selects various addresses, and may enter a personalized message to her friends.

Navigation

Once the user has experienced a community, a user may desire to see other communities. A user may select Navigation Function 3030, which may offer top-line categories such as sports and leisure, business and commerce, arts and entertainment, and so on. Browsing within a category may reveal lower level sub-categories. According to an embodiment of the invention, communities may be listed within categories, and icons next to the names of communities will provide an indication of the relative sizes and activity levels of a community, as well as an indication of how a user may join the community. Some communities will be open for all users to join. Other communities may be open on various levels of exclusivity, as established when a community is created, and therefore may not appear on a navigation menu.

A user may use Navigation Function 3030 to go to a desired community. Appropriate content objects for a given community may be downloaded and launched, putting the

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user in the community. A user may be faced with the same interface as when the original community was launched.

Announcements

A user may select an announcements screen, which may be a basic welcome mechanism to a community, where messages relevant to the community at large may be posted. An announcements tab may have links embedded into displayed messages, where links point to other communities.

Create

A user may select a create tab that enables creation of a community. A user may select Create Function 3025, such as that set forth in FIG. 2 above, may allow a user to create and design a community, select application objects and subscription objects available in a community and designate other features of a community.

Chat

A user may select a chat tab from tab interface 3010 of graphic user interface 3000. According to an embodiment of the invention, a user may be presented with a list of users who are currently in the room, along with the text window for the chat itself and a text-entry space. Attached to the text-entry space may be a send chat button. In addition, buttons for various functions may show user information, send a message to someone in the room, ignore a person (block receipt of their entries in the chatroom), add a person to the user's pals list, invite another user to a different community in the user's membership list, and invite users in the room into a private chat session. Other manners of chat may also be used.

Instant Message

A user may also select an instant message tab from tab interface 3010, where a user may send a message that is immediately transmitted to just the selected recipient. According to an embodiment of the invention, a window is displayed containing a dropdown list containing the name of the selected recipient (such as from a chat room user list or a Pals list), and an area for the user to enter in the text of the message. The user can overtype the name of the recipient to send the message to, or can drop down the list to select from a list of recipients to whom they have recently sent instant messages. A find button may also be provided that allows a user to search for recipients.

According to an embodiment of the invention, if the recipient is not currently online, the instant message will be displayed to them the next time they enter into a community. If a recipient is online, an instant message will immediately be displayed to them.

Mailing Lists

Mailing lists may allow a user or administrator to send email to a group of people in a community. An email sent to a list may be distributed to all currently subscribed members of the list. According to an embodiment of the invention, an administrator list, an announce list, a support list, and a discussion list may be provided. An administrator list may be used by administrators within a community to send messages to other administrators for the community. An announce list may be used by administrators to send messages to the members of a community. A support list may be used by community members to send messages to the community administrators. A discussion list may be used by

community members to send messages to other members of the community. Other lists may also be provided. According to an embodiment of the invention, a user may subscribe and/or unsubscribe to a given list.

Classifieds

A user may select a Classified Ads tab from tab interface 3010 of graphic user interface 3000, where classified ads may be a resource for members of a community to post and answer ads for goods, services, and interests relating to the community or in general. According to an embodiment of the invention, ads may be available according to different levels. At a global level, all communities may have access to an ad, or a user may elect to have the visibility of an ad limited to the current community. When an ad is created, the visibility level may be set by default, such as to the level of the community from which it was created, for only a particular community, or for all communities. A user may override and specify the privacy level when an ad is created. A user may respond to an ad, such as by sending a message via email to the user posting the ad. A user may also search for ads using a search entry field and search button associated with classified ads.

Subscription Objects

Subscription objects, as set forth above, may be various objects, such as chat content, a product to purchase, a photograph file, or other item, which has been published by another user. Publishing a subscription object enables others to subscribe to the subscription object. The subscription object may be accessed through a community and an application object. A subscription object may be published (e.g., made available for others to access in a community) and subscribed to (e.g., selected to be accessed in a community). A user, upon entering a community, may access subscription objects, as well as applications objects and other content objects, which form the community. A use may automatically receive updated content objects as appropriate.

FIG. 5 is a schematic diagram illustrating a system 4000 for controlling access to various subscription objects. System 4000 may comprise application objects 4020 associated with application platform module 4040, where a user may initiate, such as through graphic user interface 3000, one or more application objects 4020. A user may initiate an application object 4020, such a chat application object, an instant message application object, a whiteboard application object, a shopping cart application object, an invitation application object, a creation application object, a photo album application object or any other application object. According to an embodiment of the invention, initiation buttons 4020 may be displayed on graphic interface 3000.

Application platform module 4040 organizes initiation buttons 4020. According to an embodiment of the invention, application platform module 4040 may be located on a user's computer, such as client 110, and may organize the presentation of application objects presented through initiation buttons 4020. Application platform module 4040 may further coordinate initiation and execution of various application objects. By way of example, an application platform 4040 located on client 110, may coordinate a user initiating a photo album application object and a whiteboard application object, such as by coordinating areas (e.g. "windows") within a community for a user to interact with the application object.

Application platform 4040 may be in communication with session controller module 4060. According to an

embodiment of the invention, session controller module 4060 may coordinate initiation and execution of various application objects by controlling the running of the application objects. In coordinating initiation and execution of application objects, session controller module 4060, in communication with application platform 4040, may enable a seamless operation to be presented to a user, such that the user does not know one or more application objects are acting in concert. Session controller 4060 may allocate memory to various application objects, determine processing requirements, regulate information to download for an application object, or other manner of coordinating the initiation and execution of an application object. Session controller 4060 may be located on the server side or on the client side of a network. Other manners of coordinating may also be used.

Session controller 4060 may communicate through a network (e.g Network 150) with governor server module 4080. Governor server module 4080 may further communicate with application controller modules 4100. According to an embodiment of the invention, governor server module 4080 may be located on one server, while each of application controller module A 4100a, application controller module B 4100b, application controller module C 4100c, through application controller module N 4100n may be located on separate servers. By way of example only, application controller module A 4100a may correspond to a chat application object and be located on one server, while application controller module B 4100b may correspond to an instant message application object and be located on another server. According to another embodiment of the invention, governor server module 4080 and application controller modules 4100a-4100n, may be located on one server, or a combination of servers.

Governor server 4080 communicates with application object modules 4100 to access various application objects. Session controller 4060 may communicate to governor server module 4080 that a particular application object (e.g. a chat application object) is to be accessed. Governor server module 4080 may access the appropriate application object module (e.g. application controller module A 4100a). According to an embodiment of the invention, Governor server module 4080 may coordinate access, transmission and execution of one or more application objects by session controller 4060. Other manners for accessing applications objects may also be used.

Application controller modules 4100 may be in communication with subscription objects module 4120. According to an embodiment of the invention, a community may subscribe to one or more subscription objects, which may be accessed through an appropriate application controller module 4100. A user may create a subscription object for use in a community. The user may "publish" the subscription object by permitting users of one or more communities to access the subscription object. According to an embodiment of the invention, an administrator may "drag and drop" a subscription object into an appropriate file to enable other communities to access the subscription. "Drag and drop" may comprise highlighting and dragging a subscription object in a conventional manner (e.g., clicking and moving with a mouse) to a publishing area within a community. When the subscription object is dropped into the publishing area, an administrator may be prompted to provide information about the subscription object, as well as designate permission levels to subscribe to the subscription object. Information may include a brief description of the contents, categories that subscription object is related to, who created

the subscription object and other information related to the subscription object. Permission levels may include designating what communities have permission to subscribe to a subscription object. An administrator publishing a subscription object may designate that only communities devoted to related subject matter may subscribe to a subscription object, that a subscriber must pay to access a subscription object, or other designations that limit subscribing to a subscription object. Other manners of providing information about subscription objects may also be used.

By way of one example, a producer or seller of a product, such as a book about sailing, may publish an subscription object for the book, where the subscription object is located in subscription object module 4120. Using an appropriate application object, such as a shopping cart application object, a user may interact with the subscription object, such as by reviewing and buying the book. In publishing a subscription object, a creator of the subscription object may designate what users or communities are eligible to interact with the subscription object. By way of this example, the creator of the subscription object may designate that the subscription be available to communities related to books (e.g. books, clubs, book reviews, publishers, etc.) and to boating (e.g. sailing, history of boats, builders, etc.). The creator of a community or a community administrator may then elect to subscribe to a published subscription object. According to this example, an administrator of the "Omaha Sailing Club" community may subscribe to the subscription object for the sailing book.

By using initiation buttons 4020, a user may view the subscription object. As stated above, session controller module 4060, in communication with application platform 4040, may enable a seamless display of subscription objects. A user may be unaware, due to this seamless display, that one or more application objects are working in connection with the subscription object. For example, the subscription object, located in subscription object module 4120, may be accessed by a shopping cart application object located in the appropriate application object module 4100, Governor server module 4080 facilitates session controller module 4060 in accessing the shopping cart application. Session controller module 4060 coordinates initiation and execution of the shopping cart object, while application platform module 4040 coordinates presentation of the shopping cart application object and interaction with a user. Other manners of accessing subscription objects may also be used.

By way of another example, a community may be related to heart disease, and the users may comprise doctors within a hospital. A particular bulletin board session in the community may discuss various aspects of certain characteristics of heart disease, and may further discuss a newly released study on these characteristics. A community administrator may determine that the contents of the bulletin board session may be of interest to other doctors. Using a "drag and drop" feature, the administrator can publish the bulletin board session contents as a subscription object. The community prompts the administrator to provide information about the subscription object. The administrator may provide a brief description of the contents of the bulletin board session, including the study that was discussed. The administrator may also provide information about the number and identity of participants in the bulletin board session. Further, the administrator may determine that only communities related to heart disease may subscribe, and that other communities must pay a fee to subscribe to this particular subscription object. Other manners of publishing a subscription object may also be used.

Field Matching

A user may select Search Function 3045 to search for communities, users, vendors, and/or products. As described above, a creator may designate one or more community fields, and a user may designate a user field. According to an embodiment of the invention, a vendor may designate a vendor field. A vendor may have a product to sell to one or more users and/or communities. A vendor may describe the product by providing information for vendor fields. Vendor fields may comprise a category or categories of interest, language, location, age group, and meta-tags of interest associated with the product. According to an embodiment of the invention, vendor fields, community fields, and user fields may have corresponding information. Central controller module 115 may have a field matching function associated therein to match users, communities, and vendors based on the fields provided. A user may provide information in a user field. According to an embodiment of the invention, a user may designate user fields when creating a profile. User fields may also be designated by signing on to a mailing list. Field matching may occur periodically, (e.g., hourly, daily, weekly, etc.) and the results may be presented to a user. According to an embodiment of the invention, field matching results may be presented when a user enters a community, such as when a user enters (e.g., logs into) a community. Field matching results may be presented to the user. By way of example, a user may enter the "Omaha Sailing Club" community and be presented with vendor fields and community fields. The vendor field may describe a book, in english, about sailing races around the world. The community field may describe another newly created sailing community, where the membership is in Lincoln Nebr. According to another embodiment of the invention, a community may have a field matching area, where a user may access the field matching function to learn about other products and/or communities. A user may provide information for a user field, and may activate the field matching function. Other manners of field matching may also be used.

According to an example of the present invention, a community may be created for enabling users to interact in a gaming environment. The following example provides a specific embodiment for such a community using the present invention. FIG. 6 illustrates components of central controller module 115 and data storage module 160 in detail. It is understood that components outlined in FIG. 1 may also be used in this system as appropriate. Each of these components and its function is now described.

The central controller module 115 may function as a game server for a gaming community and controls the start of a game, the game play and rules enforcement, monitors game progress, and player scoring, and determines the end of the game. Central controller module 115, following game play may also award game points to players (e.g. users) at the conclusion of the game. Additionally, central controller module 115 may act as the interface for game play among multiple players and may also obtain various types of information from players and purchasers of games, game elements (such as game cards used in connection with game play) and associated game and products. Central controller module 115 also provides certain information to players and purchasers. Information provided may include, for example, new games, advertisements, promotions, updates, and/or new user information for use in contacting the user. Information received and provided is stored in data storage module 160.

The central processing unit module 330 may provide overall control over the operations occurring on central

controller module 115. The cryptographic application module 320 supports the authentication of communications between a service provider (which may, for example, operate a multi-player game service and own or lease central controller module 115), players and/or purchasers and advertisers/vendors. In this preferred specific embodiment, two cryptographic applications are included: one for playing, monitoring, and distributing communities and games and another for e-commerce functions such as paying for purchases, ordering products, etc. The community and game encryption application may be industry standard encryption (e.g., SSL, RSA, SET, etc.), and is used to distribute communities, games, monitor games, and trade virtual values. The operating system (OS) 315, read only memory module 325, random access memory module 335, clock module 340, and player monitor and user analysis application modules 345, provide support to CPU module 330.

In a preferred embodiment, OS 315 is either Unix based or Microsoft Windows NT™. Further, read only memory module 325 may include a commercial BIOS for low level system control. Player monitor and user analysis application modules 345 may provide control over community interaction, game play and administration. For example, these applications may serve to ensure only legal moves and actions (according to game rules) are made. Player monitor and user analysis application modules 345 may also serve to control game scoring and award distribution, as well as ascertain members of a community. While the above embodiment describes a single computer acting as central controller module 115, those skilled in the art will realize that the functions can be used on a distributed set of networked computers.

Prior to a discussion of the various databases which may comprise data storage device modules 160, a background regarding game play in general is provided. While the present invention may be employed with various applications in general and various computer games particularly, IADS 100 may be particularly well suited for computer games involving multiplayer play and which involve particular "game elements" as a part of game play. For example, a game may involve the use of "game cards." Game cards are icons, a game playing capability, that represent elements of a game, e.g., by allowing players certain abilities in the game. A free set of game cards may initially be sent to a player, such as with an invitation to a community. Additional cards can be purchased through Internet 100 using IADS 100. All cards are initially sent to the player with the free set "unlocked." In effect, this is controlled by maintaining a database (e.g. game database module 355) which enables particular cards or other game elements on a player by player basis. Cards can be traded between players via central controller module 115, either through a community, or independently. All elements of the game are present in the executable included in the application object, but the players do not have permission to use some elements (e.g. cards) in the game until they have been "purchased."

Returning to data storage module 160 and the description of its possible components, data storage modules 160 store, update and provide information stored in various databases including, for example, player database modules 350, game database module 355, inquiry database module 360, message database module 365, audit database module 370 and other database modules 375. Data storage modules 160 may include one or more hard disk drives including magnetic and optical storage units, as well as CD-ROM devices or flash memory. Those skilled in the art will recognize that the

storage of the database contents could alternatively be distributed over Network 150, such as the Internet, or over another network. Player database module 350 may store information pertaining to what games and game cards (or other elements of game play) the player owns and can use, and selected player demographics. Inquiry database module 360, contains a historical data set including information relevant to player and/or purchaser requests as well as various other types of information such as advertising preferences, purchasing history, the number and value of virtual value tickets (discussed below), and rating and ranking of players. The audit database module 370 may contain information relevant to the purchases made by the player such as payment history and status as well as fulfillment history and status. Game database module 355 contains historical information concerning the particular games played such as when the games were played, game results, levels of play, etc. as well as associated player information. Message database module 365 contains a summary of information, by player, concerning types of messages sent to the player and received by the player and/or purchases and any results of game play. The other database modules 375 may contain any other type of information associated with the application including, for example, summary information, usage of virtual awards, advertiser information, usage statistics and the like.

In order to provide multiple player game play through the Network 150 under the control of central controller module 115, a number of steps take place after a community information and subscription objects are received. Those skilled in the art will recognize that control could alternatively be accomplished through a peer-to-peer network or through other communications links. The steps associated with the game distribution and play are illustrated by the flowchart included as FIG. 7. Each of the steps in FIG. 7 is described generally at this point with further detail following below. First, at step 400, the process is initiated. In step 405, the user in question is sent an email containing a message component and an executable component in the form described below. According to an embodiment of the invention, an e-mail may include an executable component with one or more application object file locations. Upon receipt of this email, the user may open it to view its contents. The email preferably indicates (through the message component) that the purpose of the email is to allow the recipient to join a community and participate in multiple player game play using IADS 100. If the user decides to participate in a game play community, the user must "activate" the executable component received. This may be accomplished by "opening" the attachment or "launching" the attachment under a specified application. Upon invocation of the executable component, connection to central controller module 115 may be established (step 410). The connection may be established through a connection provider (e.g. an internet service provider) using any one of many available protocols through Network 150. According to an embodiment of the invention, the application object is preferably composed in Simple Message Transfer Protocol (SMTP) format or another format that permits conversion for email systems that do not recognize SMTP. Conversion routines may be included within the application object for use by the target email applications.

Upon a user's decision to enter a community to play a game, a client application, which may have a small distribution and play application will be initiated. The distribution and play application may be in the form of an automatically self loading program for loading a client application. This

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component invokes a connection to central controller module 115 through Network 150. The user clicks on the application represented, for example, by a link to a community or by the executable file (.exe) for the application. The user registers, providing registration and user information. According to an embodiment of the invention, a client application with a distribution and play application may be downloaded from central controller module 115 to a local hard drive through the connection established by executable component. The user may enter a chat room provided by the client application and which updates itself from server automatically. According to another embodiment of the invention, a user may be presented a dialog box by the client application. From there, the user can launch a game in a community by initiating an application object, e.g. a JAVA application object, a chat application object, etc. By way of an example in a gaming environment, the distribution and play application may be written in the C++ language so that JAVA applications can be easily launched. Loading a client application with a distribution and play application will be described in more detail below.

At step 415, after the connection has been established, central controller module 115 may request particular information from the user prior to initiating any further activity. The information request may include a request for personal information or other information which may be useful in marketing the application. Additionally, central controller module 115 may automatically capture particular information relevant to the user without action by or even the knowledge of the user. For example, central controller module 115 may capture information relevant to the source of the invitation application code (i.e. the initial source of the email and the routing involved in eventual transmission to this user.).

The user responds to the information requests at step 420. According to an embodiment of the invention, a client application with a distribution and play application may be downloaded while a user responds to requests for information. Depending upon the responses and predetermined results based upon the responses, the user may or may not be permitted to proceed (e.g., or join a community). In the event that the user is denied the right to proceed central controller module 115 may transmit a predetermined message describing the reason(s) for denial. Alternatively, if the user is permitted to proceed based upon his or her responses, the user may be placed in a chat room at step 425. Preferably, the first chat room is a "lobby" permitting the user to access various areas within a community, such as to move from room to room until he or she locates players desiring to play the same game as user. According to another embodiment of the invention, a user may be placed in an announcements screen of a community. The chat room is preferably invoked through an application object obtained from the executable component emailed to the user at Computer 110 and executed locally at Computer 110. The chat room application object preferably resides at central controller module 115 so as to permit other users who also have a local copy of the chat application object to communicate between and among each other. For example, in this way, it is possible for a user at Computer 110a to communicate via a chat room with a user at Computer 110b.

For example at step 430, users located at computer 210a and computer 210b may interact with each other in the chat room in a community and perhaps determine that they both would like to play the computer game which is included in the invitation application object which has been previously emailed to both users or which may have been e-mailed from one user to the other outside of the chat room. By selecting, for example, a button within the chat room, each of the users,

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under the control of central controller module 115 are set up to play the computer game against each other. This occurs at step 435. According to another embodiment of the invention, a button to set up game play may be located outside the chat room, but within the community. Once the execution procedures have been completed, the users may participate in coordinated game play at step 440 under the control of central controller module 115. It is also possible that other users may also have been located in the chat room and selected for inclusion in the multiple player game. Once play is completed at step 445, post application processing activities may proceed at step 450. Post application processing may include, for example, awarding of prizes or tickets and/or gathering of additional information. These activities are discussed in greater detail below.

FIG. 8A illustrates the detailed process for game play according to a preferred embodiment of the present invention. First, the user receives a copy of an invitation application from some other party as described previously (step 500). At this point, the user may, at his or her option, decide to authenticate the invitation application. Depending upon the source of the application, the user may wish to ensure that the original source of the invitation application is from the service provider operating central controller module 115 (or some other legitimate source). In the event the user does not desire to authenticate the invitation application, processing continues at step 530, discussed below.

Otherwise, if the user does desire to authenticate the invitation application, processing continues at step 511. At step 511, the user may use a browser application (or some alternate means such as, for example FTP) to locate a website or other server storing a verification application. In one embodiment, the user enters the URL for the website (which may be stored at central controller module 115 or some other server). Once the connection with central controller module 115 (or another authenticating server) is established, the verification application is downloaded to client 110 at step 512. The user then executes the verification application locally and specifies the location of the invitation application being verified (step 513). In an embodiment of the invention, verification occurs using the MD-5 checksum algorithm of RSA. As a result, a checksum is generated based upon the coding of the application object. The checksum generated is transmitted to central controller module 115 (or other authenticating server) for comparison with known checksums for various invitation applications and versions thereof. At step 514, the website or authenticating server transmits a verification status to client 110 indicative of the verification results. If the checksums match, the website or authenticating server will transmit a response message indicating that the application object is valid. Otherwise, the response indicates that the application object may be invalid.

At step 520, if the response is indicative of an invalid invitation application, the user is alerted of the same via a message to client 110 at step 525 and the process terminates. Alternatively, if the invitation application is verified, the user is alerted of successful verification through a message at client 110 (step 518). In a preferred embodiment, the user next launches the invitation application (e.g. the executable component) which establishes a connection with central controller module 115. Central controller module 115 immediately initiates the community, or "lobby," executable and the user is placed in the community chat room (530). According to another embodiment, a user may be presented a dialog box instead of being placed in a chat room. The lobby serves as the entry point into the gaming environment. Alternatively, it is possible for the verification invitation application to be designed to automatically invoke the connection and launch the application upon successful verification.

In either case, on the user's first visit, the user is prompted to register, and does register with the service via central controller at steps 535 and 540 so that information can be gathered as necessary prior to game play. A registration form (or other means for providing the requested information) is completed by the user and may then be sent by client 110 to central controller module 115 at step 545. Information completeness is checked at step 550. If the information provided by the user is incomplete, follow-up questions may be sent to the user at step 555. The user then provides answers to follow-up questions 560. This process is repeated until the user furnishes the minimum data requirement pre-selected as a requirement for game play. Once the requisite information is furnished, the user is considered a "valid user" (e.g. to have joined a community) and a cryptographic key is transmitted to client 110 permitting user to access the applications objects and the community. The cryptographic key is used in connection with cryptography applications 320 to control access to application objects and resources resident on central controller module 115.

The user next enters the community at step 570. The community includes a chat room and permits the user to select, via various buttons, hyperlinks, pull down menus, etc, other chat rooms application objects, and/or the application/game in which the user wishes to participate. In order to participate in a particular application/game, the user should preferably maintain a local copy of the application/game at client 110. In some cases, the user will receive the application/game as part of an invitation application emailed to him or her as discussed above. Alternatively, the user can download the application/game from a website or from central controller module 115. According to an embodiment of the invention, applications/games are downloaded while the user completes the registration form. Control may be established such that central controller module 115 preferably will not permit a user to select an application/game which is determined not to be locally resident at user's client. This control may be established by, for example, tracking downloads of applications to particular registered users or verifying the presence of the application on the local client immediately prior to application execution when requested by the user.

Assuming the user has been authorized and is determined to maintain a local copy of the application, client 110 may be instructed by central controller module 115 to download with a client application art and/or other supporting files such as graphics, game engines, audio files, etc for the selected game/application (step 575). Particular files, characters and game elements may also be cached locally at client 110 for rapid access during game play.

The user then selects playing partners at step 5115. Partners may be selected through the chat application with, for example, pull down menus or simultaneous player transfer to a specific chat room intended for a particular game or application. Partners may also be selected in other areas of a community. In the latter case, the players shift to a game space (specialized form of chat room) at step 5120. The game is then played by the players under the control of central controller module 115 at step 5125. Upon completion of the game, whether by player actions, time limitations or other predetermined criteria for game termination, central controller module 115 terminates the game at step 5130. At step 5135, a score for a game is determined.

Certain games are configured for "virtual value reallocation" based upon the results of game play. A determination is made at step 5140 as to whether the game just played is one such game. Prior to game play, a user may purchase a certain amount of "virtual value" or "tickets" for game play. Players may alternatively or additionally obtain virtual value

from invitation applications emailed to them. Upon game completion, the amount of virtual value in a player's account may be decremented in return for game play. Additionally, if a game is configured for "virtual value reallocation", a game winner may receive some of the virtual value present in the loser's account.

If virtual value reallocation is supported, then the right branch of the decision box at step 5140 is followed. In this case, the amount of reallocation is determined at step 5155. This may be based upon a score differential or may be a fixed number per game. In step 5160, each of the winners and losers accounts are adjusted. In the event of more than two players, various algorithms can be used to reallocate virtual value among all accounts. If the left path at step 5140 is followed (i.e. no virtual value reallocation), in one embodiment, it is possible at step 5145 to award some amount of virtual value to selected players based upon game play. That value is updated in the player's account at step 5150. The virtual value processing ends at step 5165.

Following this, a user may return to the announcements screen or another chat room of the community at step 5170. The user can then decide to play the same game again, to play another game or to not play any more games. This decision is made at step 5175. If the user decides to play another game or the same game again, the user returns to step 5115 where he or she selects partners and repeats the process previously described above. If the user decides not to play any more games at step 5175, the user may determine whether to send a game, and a community, to others at step 5180. If not, the user can return to the announcements screen of a community at step 5195 and exit at step 5200. Alternatively, if the user desires, he or she can designate email addresses (as well as possibly some additional data) for potential new users at step 5185. The user can also designate particular games and/or other applications which may be of interest to the potential users. The email addresses and other information are collected by central controller at step 5190, which then may store the data in inquiry database 360 or some other database. Following this, an invitation application with the designated games (and/or other applications) may be emailed to designated potential users 5205. Following this step, the user may return to the Lobby at step 5195 and exits the process at step 5200.

FIG. 8B illustrates the process for game play in the event that a user returns to the service under the control of central controller module 115 for a play a second or subsequent time (i.e. the user has already established an account). The user decides to play a game at step 5210. Next, the user logs on to central controller module 115 at step 5215. Central controller module 115 next determines if the user is an accredited user (e.g. is a member of a community) based upon a previously set up account at step 5225. If not, central controller module 115 terminates the link at step 5230, or may redirect the user to locations where he may set up an account. Central controller may also issue a message to the user indicating the problem and/or what the user must do to properly set up an account. If the user is properly authenticated, central controller module 115 places the user in the lobby at step 5235. At this time, central controller module 115 may also determine the status of the player's invitation application and the associated executable component and provide updates/upgrades as needed at step 5240.

After this is completed, the user decides if he or she wishes to establish email/chat contact with others at step 5245. If so, the application object under the control of central controller module 115 automatically establishes contact with designated other users at step 5250 by locating other individuals if they are present in system chat rooms. Following this, conversation in chatroom is accomplished at step 5255. Upon termination of the chat, the user returns to

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the announcements tab of the community at step 5260. The user then decides whether to play a game at step 5265. If not, the user can then exit at step 5270. Otherwise, if the user desires to play a game, the user proceeds, at step 5265, to step 5115 in FIG. [8A] to proceed with game set up and play as described above.

FIG. 9 illustrates the specific steps involved in game play. The user logs on to a community, if already not logged on, to initiate a game at step 600. The user enters, in the community, the chat room associated with the particular game or application and meets other potential players or "application partners" at step 605. The user then decides whether or not to play a game at step 610. The user can exit at step 620 or play a game at step 610. The user then plays the game at step 620. At game completion or stop at step 625, a final score is computed for each player. If a player is a winner, he or she may be awarded ticket(s) at step 635 depending on the final score (which may be modified by a special game routine depending on the game). If the player is not a winner, then the player may be returned to the chat room at step 605.

FIG. 10 is a flow chart illustrating the detailed process of virtual value ticket account control. As discussed above, based upon game play results, players may "win" virtual value tickets that may be redeemed for prizes, merchandise, services or additional game play. At step 700, the player's game scores are used to compute a virtual value. Various algorithms may be used to correlate game score to virtual value. For example, a player might receive a virtual value which equals his game score (points) multiplied by some multiple such as one-tenth. Next, at step 710, IADS 100 makes a determination as to whether the game just played is configured for "virtual value reallocation". As discussed above, if the game is configured as such, player's accounts are adjusted based upon game play. In other words, one player's account may be decremented (the loser) while another player's account may be incremented (the winner) (step 715). In a preferred embodiment, the number of total virtual value in the player's collective accounts remains constant. Value is merely shifted from one account to another based upon game play. Following account adjustment at step 715 or in the event the game is not configured for virtual value adjustments (i.e. game configured just to award virtual value to selected players or do nothing at the end of game play), the process exits at step 720.

FIG. 11 is a flowchart illustrating the steps that may be taken by IADS 100 in connection with a user response in the case where a user desires to purchase a product. In step 800, the user decides that he or she would like to purchase a product using IADS 100. It will be noted that IADS 100, in the context of game play, is particularly well suited for vending "cards" which are elements of game play. In this case, when a user purchases cards as described below, central controller module 115 "enables" the cards purchased with respect to the user as a result of the purchase. Thus, information stored at data storage modules 160 indicates which "cards" or other game elements each player is entitled to use.

Returning to FIG. 11, at step 805, the user establishes a connection to a community with central controller 805. This can be accomplished through the use of an invitation application object as described above or through browser access to an appropriate website. At step 810, the user reviews the cards and/or products available for purchase. According to an embodiment of the invention, products may be selected by an administrator based on the relevance of the products to the community. As described above, an administrator may view various products associated with games. Selected products may be placed in a store in a community. A user may review the selected products. At step 815, the user decides

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which products and/or cards to purchase. At steps 820, 825, and 830 the user employs traditional e-commerce technology to pay for and initiate the order fulfillment process. If products are ordered from a third party vendor, central controller module 115 may transmit a message (according to an agreed protocol) to the appropriate vendor detailing the order via Network 150. According to an embodiment of the invention, a appropriate application object (e.g. a shopping cart application object) may facilitate a user purchasing a product.

According to an embodiment of the invention, a store, such as through Community Store Function 3050 on graphic user interface 3000 (FIG. 4) may be accessed by a user. A community administrator may view and select items to be placed in the store, such as in the present embodiments, cards, books, other games, game accessories, and/or other products associated with a game. A user may review products, such as cards, at step 810, and decide which cards to purchase at step 815. Ordering cards, at step 820, and paying for cards, at step 830, may be performed through the community. Other manners of using a store may also be used.

The preferred embodiment of this feature of IADS 100 provides access to central controller module 115 via a user interface or other order entry system which interfaces through a community with vendors' fulfillment system. Virtual value (tickets) stored in a user's account may be used to make purchases resulting in a decrement of "virtual value" in the user's account. Cash payments may also be made via a secure encryption payment system, such as RSA, SSL, or SET. Those skilled will recognize that this payment and fulfillment can alternatively be made via other payment and fulfillment systems.

According to another embodiment of the invention, a computer usable medium having computer readable program code embodied therein for interaction in and creation of may be provided. For example, the computer usable medium may comprise a CD ROM, a floppy disk, a hard disk, or any other computer usable medium. One or more of the modules of a system may comprise computer readable program code that is provided on the computer usable medium such that when the computer usable medium is installed on a computer system, those modules cause the computer system to perform the functions described.

According to one embodiment central controller module 115, user interface module 125, link application module 130, processor module 140, memory module 170, communication application module 155, user interface module 25, community creating module 165, invitation module 175, communication module 180 application platform 404, session controller module 406, governor server module 408, application controller modules 410, and subscription objects module 412 may comprise computer readable code that, when installed on a computer, perform the functions described above. Also, only some of the modules may be provided in computer readable code.

According to one specific embodiment of the present invention, system 100 may comprise components of a software system. System 100 may operate on a network and may be connected to other systems sharing a common database. Other hardware arrangements may also be provided.

Other embodiments uses and advantages of the present invention will be apparent to those skilled in the art from consideration of the specification and practice of the invention disclosed herein. The specification and examples should be considered exemplary only. The intended scope of the invention is only limited by the claims appended hereto.

We claim:

1. A method for creating a community for users with common interests to interact in, the method comprising the steps of:

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receiving a creation transmission from a registered user,
the creation transmission indicating that the registered
user desires to create a community;

receiving community identification information from the
registered user; 5

receiving a selection of at least one application object
from the registered user;

creating a community based on the community identi-
fication information and the at least one application
object; 10

receiving at least one communications address designated
by the registered user, the at least one communications
address corresponding to a user to receive a created
community; and 15

transmitting the created community based in part on the at
least one communications address.

2. The method according to claim 1, wherein the step of
transmitting the created community further comprises trans-
mitting the created community and a user interface. 20

3. The method according to claim 1, wherein the at least
one communications address is an e-mail address.

4. The method according to claim 1, wherein the selected
at least one application object comprises at least one of:

- a) chat application object;
- b) an instant message application object;
- c) a white board application object;
- d) a shopping cart application object;
- e) an invitation application object;
- f) a creation application object;
- g) a photo album application object;
- h) a store application object;
- i) a calendar application object;
- j) a video conferencing application object;
- k) a voice chat application object;
- l) an e-mail list application object;
- m) a bulletin board application object; and
- n) a pals application object. 40

5. The method according to claim 1, further comprising
the step of receiving a selection to subscribe to at least one
subscription object, wherein the at least one subscription
object is accessed through one of the at least one application
object. 45

6. The method according to claim 5, wherein the at least
one subscription object is published by at least one of:

- a) at least one other community;
- b) at least one other user; and
- c) at least one vendor. 50

7. The method according to claim 5, wherein accessing
the at least one subscription object through the one of the at
least one application object maintains all of the original
features of the subscription object.

8. The method according to claim 1, wherein community
information further comprises community fields, whereby
the community presents to a user at least at least one of: 55

- a) at least one other user having user fields;
- b) at least one other community having community fields;
and 60
- c) at least one vendor product having vendor fields;
wherein the presentation is based in part on a compari-
son of user fields, community fields and vendor
fields.

9. A system for creating a community for users with 65
common interests to interact in comprising:
a receiver module for receiving:

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- a) a creation transmission from a registered user, the
creation transmission indicating that the registered
user desires to create a community;
- b) receiving community identification information
from the registered user;
- c) receiving a selection of at least one application
object from the registered user; and
- d) at least one communications address designated by
the registered user, the at least one communications
address corresponding to a user to receive a created
community;

a creation module for creating a community based on the
community identification information and the at least
one community function; and

a transmitter for transmitting the created community
based in part on the at least one communications
address.

10. The system according to claim 9, wherein transmitting
the created community comprises transmitting the created
community and a user interface.

11. The system according to claim 9, wherein the at least
one communications address is an e-mail address.

12. The system according to claim 9, wherein the selected
at least one application object comprises at least one of:

- a) chat application object;
- b) an instant message application object;
- c) a white board application object;
- d) a shopping cart application object;
- e) an invitation application object;
- f) a creation application object;
- g) a photo album application object;
- h) a store application object;
- i) a calendar application object;
- j) a video conferencing application object;
- k) a voice chat application object;
- l) an e-mail list application object;
- m) a bulletin board application object; and
- n) a pals application object. 40

13. The system according to claim 9, further comprising
a subscription module for subscribing to at least one sub-
scription object, wherein the at least one subscription object
is accessed through one of the at least one application object.

14. The method according to claim 13, wherein the at least
one subscription object is published by at least one of:

- a) at least one other community;
- b) at least one other user; and
- c) at least one vendor. 50

15. The system according to claim 13, wherein accessing
the at least one subscription object through the one of the at
least one application object maintains all of the original
features of the subscription object.

16. The system according to claim 9, wherein community
information further comprises community fields, whereby
the community presents to a user through the community at
least at least one of:

- a) at least one other user having user fields;
- b) at least one other community having community fields;
and 60
- c) at least one vendor product having vendor fields;
wherein the presentation is based in part on a compari-
son of user fields, community fields and vendor
fields.

17. A method for creating a community for users with
common interests to interact in, the method comprising the
steps of:

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transmitting a creation transmission, the creation transmission indicating the desire to create a community;
transmitting community identification information;
transmitting at least one communications address corresponding to a user to receive the created community;
and

selecting at least one application object for inclusion in the community, whereby the community is created based on the community identification information and the at least one application object.

18. The method according to claim 17, wherein the created community includes a user interface.

19. The method according to claim 17, wherein the at least one communications address is an e-mail address.

20. The method according to claim 17, wherein the selected at least one application object comprises at least one of:

- a) chat application object;
- b) an instant message application object;
- c) a white board application object;
- d) a shopping cart application object;
- e) an invitation application object;
- f) a creation application object;
- g) a photo album application object;
- h) a store application object;
- i) a calendar application object;
- j) a video conferencing application object;
- k) a voice chat application object;
- l) an e-mail list application object;
- m) a bulletin board application object; and
- n) a pals application object.

21. The method according to claim 17, further comprising the step of subscribing to at least one subscription object for inclusion in the community, wherein the at least one subscription object is accessed through one of the at least one application object.

22. The method according to claim 21, wherein the at least one subscription object is published by at least one of:

- a) at least one other community;
- b) at least one other user; and
- c) at least one vendor.

23. The method according to claim 21, wherein accessing the at least one subscription object through the one of the at least one application object maintains all of the original features of the subscription object.

24. The method according to claim 17, wherein community information further comprises community fields, whereby the community presents to a user at least at least one of:

- a) at least one other user having user fields;
- b) at least one other community having community fields; and
- c) at least one vendor product having vendor fields; wherein the presentation is based in part on a comparison of user fields, community fields and vendor fields.

25. A system for creating a community for users with common interests to interact in, the system comprising:

- a transmitter module for transmitting:
 - a) a creation transmission, the creation transmission indicating the desire to create a community;

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- b) community identification information;
- c) at least one communications address corresponding to a user to receive the created community; and
- d) a selection of at least one application object for inclusion in the community, whereby the community is created based on the community identification information and the at least one application object; and

a display module for displaying prompts for the community identification information, the at least one communications address, and the selection of at least one application object.

26. The system according to claim 25, wherein the created community includes a user interface.

27. The system according to claim 25, wherein the at least one communications address is an e-mail address.

28. The system according to claim 25, wherein the selected at least one application object comprises at least one of:

- a) chat application object;
- b) an instant message application object;
- c) a white board application object;
- d) a shopping cart application object;
- e) an invitation application object;
- f) a creation application object;
- g) a photo album application object;
- h) a store application object;
- i) a calendar application object;
- j) a video conferencing application object;
- k) a voice chat application object;
- l) an e-mail list application object;
- m) a bulletin board application object; and
- n) a pals application object.

29. The system according to claim 25, wherein the transmitter module further transmits the selection of subscribing to at least one subscription object for inclusion in the community, wherein the at least one subscription object is accessed through one of the at least one application object.

30. The system according to claim 29, wherein the at least one subscription object is published by at least one of:

- a) at least one other community;
- b) at least one other user; and
- c) at least one vendor.

31. The system according to claim 29, wherein accessing the at least one subscription object through the one of the at least one application object maintains all of the original features of the subscription object.

32. The system according to claim 25, wherein community information further comprises community fields, whereby the community presents to a user at least at least one of:

- a) at least one other user having user fields;
- b) at least one other community having community fields; and
- c) at least one vendor product having vendor fields; wherein the presentation is based in part on a comparison of user fields, community fields and vendor fields.

* * * * *

CERTIFICATE OF SERVICE

I certify that on October 25, 2013, the foregoing Brief for Appellant Cross Atlantic Capital Partners, Inc. was filed electronically with the Clerk of the Court for the U.S. Court of Appeals for the Federal Circuit using the CM/ECF system and served electronically by ECF on the following counsel:

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